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STATE OF NEW YORK

PRELIMINARY REPORT

OF THE

FACTORY INVESTIGATING COMMISSION.

1912

VOLUME II

TRANSMITTED TO THE LEGISLATURE MARCH 1, 1912

ALBANY
THE ARGUS COMPANY, PRINTERS
1912

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S. 1111
S. 1112

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MINUTES OF THE NEW YORK STATE FACTORY INVESTIGATING COMMISSION

NEW YORK, *October 10, 1911.*

ACT CREATING COMMISSION

AN ACT to create a commission to investigate the conditions under which manufacture is carried on in cities of the first and second class in this State, and making an appropriation therefor.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. A commission of nine members is hereby created consisting of two senators to be appointed by the president of the Senate, three members of the Assembly to be appointed by the speaker of the Assembly, and four other members to be appointed by the governor. Such commission shall investigate as speedily as possible the existing conditions under which manufacture is carried on in so-called loft buildings and otherwise in the cities of the first and second class in the state, including in such investigation matters affecting the health and safety of operatives as well as the security and best interests of the public, the character of the buildings and structures in which such manufacture or other business takes place, and the laws and ordinances now regulating their erection, maintenance and supervision, to the end, among other things, that such remedial legislation may be enacted as will eliminate existing peril to the life and health of operatives and other occupants in existing or new structures, and to promote the best interests of the community. Such commission shall also have power to inquire into the conditions under which manufacture takes place in other cities of this state and country, and elsewhere, if it shall so determine.

Section 2. The commission shall have power to elect its chairman and other officers, to compel the attendance of witnesses and the production of books and papers; to employ counsel, a secretary, stenographers and all necessary clerical assistants; and shall other-

wise have all the powers of a legislative committee as provided by the legislative law, including the adoption of rules for the conduct of its proceedings. The members of such commission shall receive no compensation for their services, but shall be entitled to their actual and necessary expenses incurred in the performance of their duties.

Section 3. Such commission shall make a report of its proceedings, together with its recommendations, to the legislature on or before the fifteenth day of February, nineteen hundred and twelve.

Section 4. The sum of ten thousand dollars (\$10,000), or so much thereof as may be needed, is hereby appropriated for the actual and necessary expenses of the commission in carrying out the provisions of this act, payable by the treasurer on the warrant of the comptroller, on the order of the chairman of such commission. The commission may also receive and expend for the purposes of this act any money contributed by voluntary subscription.

Section 5. This act shall take effect immediately.

Pursuant to the foregoing act the following Commission was appointed:

HON. ROBERT F. WAGNER, *Chairman*.

HON. ALFRED E. SMITH, *Vice-Chairman*.

HON. CHARLES M. HAMILTON.

HON. EDWARD D. JACKSON.

HON. CYRUS W. PHILLIPS.

MR. SAMUEL GOMPERS.

MR. SIMON BRENTANO.

MR. ROBERT E. DOWLING.

MISS MARY E. DREIER.

**MINUTES OF THE HEARING OF THE NEW YORK
STATE FACTORY INVESTIGATING COMMISSION,
HELD IN THE CITY HALL
AT 10.30 A. M.**

FIRST PUBLIC HEARING.

NEW YORK, *October 10, 1911.*

Present — HON. ALFRED E. SMITH, *Vice-Chairman.*

MR. SAMUEL GOMPERS.

HON. CYRUS W. PHILLIPS.

MISS MARY E. DREIER.

MR. ROBERT E. DOWLING.

ABRAM I. ELKUS, *Counsel to the Commission.*

BERNARD L. SHIENTAG, *Assistant Counsel.*

The act creating the Commission was read by Vice-Chairman Smith.

The VICE-CHAIRMAN: The Commission being present and ready to proceed, we would like to hear from counsel.

MR. ELKUS: We all regret, of course, that Senator Wagner, by reason of his illness, is unable to be present and act as chairman of the Commission.

It is unfortunate that the occurrence of a catastrophe is often necessary to awaken a people to its true sense of responsibility. The Triangle Waist Company fire of March, 1911, with its attendant horrors and loss of life shocked both city and State. The loss of one hundred and forty-three lives in one factory fire brought to the attention of the public with terrible force the dan-

gers that daily threaten the lives of hundreds of thousands of employees in manufacturing establishments in the City of New York and elsewhere throughout the State.

Public attention was directed not only to the dangers which threaten employees because of inadequate fire-escape facilities, and because of the lack of precautions against fire, but also to the less obvious but greater menace of unsanitary conditions.

It has become increasingly clear that it is the duty of the State to safeguard the worker, not only against the occasional accidents, but the daily incidents of industry, not only against the accidents which are extraordinary, but against the incidents which are the ordinary occurrences of industrial life.

For many years it was believed that a sharp line of demarkation separated preventable from unpreventable accidents in industry, but it is being discovered from year to year that the number of unpreventable accidents is growing smaller and the number of preventable accidents larger. The decrease of unpreventable and the increase of preventable accidents seems to be a matter of wise legislation and of expenditure of thought and money in order to safeguard the conditions of toil. The so-called unavoidable or unpreventable accidents which, it has been said, were once believed to be the result of the inscrutable decrees of Divine Providence, are now seen to be the result in many cases of unscrupulous greed or human improvidence.

Occupational diseases, poisoning and industrial consumption have practically been permitted to go unchecked, resulting in the untimely death of thousands, and the consequent loss not only to the families of the unfortunate workers but ultimately to the entire community.

Men are permitted to handle arsenic without gloves, to breathe ammonia and turpentine fumes without protection, to fill their lungs all day long with dust and other harmful substances. Is it any wonder that the mortality rate in industrial occupations is so high, and that our charities and benevolent organizations, public and private, are unable to meet the constantly increasing demands made upon them? Charity, moreover, ineffectively palliates what wise and just social legislation might effectively prevent.

Numerous civic organizations and public-spirited citizens, aroused to a full sense of the dangers which threaten workers, united in placing these matters before the Legislature of the State of New York and requesting that a Commission be appointed to inquire into the conditions under which manufacturing is being carried on in the cities of the first and second class in this State.

This request was promptly granted by the Legislature, and pursuant to its act (Chapter 561 of the Laws of 1911), this Commission, the Factory Investigating Commission of the State of New York, was appointed "to the end that such remedial legislation be enacted as will eliminate existing peril to the life and health of operatives and other occupants in existing or new structures."

The problem before the Commission which meets to-day, is the problem of human conservation — the conservation of the lives of the toilers who most need protection at toil on the part of the State, and the destruction of whom by accidents, avoidable or unavoidable, constitutes a deadly injury to the State. This Commission must concern itself with the problem of how to meet the evils that have arisen in the development of industry out of human wastage that has not only been needless but often reckless and wanton.

In September, 1910, there were over 29,000 factories in Greater New York alone with over 611,000 employees. In the State of New York there were over 45,000 factories and manufacturing establishments employing over 850,000 men, women and children. The State census of 1905 showed the value of manufacturing products in the State of New York to be in the neighborhood of \$2,500,000,000. The vast numbers of persons directly and vitally affected, the important interests involved, viz., the safety and health of hundreds of thousands of inhabitants and citizens of the State, combine to make this investigation one of the most important that has yet been undertaken, and certainly one that should be most far reaching in its results.

Some of the states have enacted legislation providing that compensation should be made to workmen or their families for death or injury because of accident. This is, of course, admirable legis-

lation, but how much better it would be for the workingmen and women and those dependent upon them if manufacturing were so safeguarded as to prevent the injury, and especially that insidious undermining of health which causes illness and death for which no recovery exists in law.

If it has rightly been said that a man may be killed by a tenement house as truly as by a club or a gun, is it not equally true that a man may be killed by a factory and the unsanitary conditions which obtain therein, as surely as he may be killed by a fire accident. And it is not less true that the slaughter of men and women workers by the slow processes of unsanitary and unhealthful conditions is not only immoral and anti-social, but the state is beginning to declare that it is legally indefensible, and therefore must, through carefully considered legislation, be made virtually impossible.

Apart from the humanitarian aspect of the matter which must appeal strongly to every lover of his kind, to require the establishment and maintenance of safe and hygienic conditions in the places of employment of these hundreds of thousands of operatives so that their industrial efficiency may be unimpaired is of prime economic importance to the state. Sickness due to unwholesome conditions is one of the chief causes of poverty and distress, of the destruction of the lives of men and women whose energy are the sources of the nation's wealth. The economic value of the human life is everywhere being more and more recognized. The proper safeguarding of the health of the employees, the prevention and limitation of industrial or occupational diseases is now one of the most important problems before any industrial community and one which must be solved. The necessity for such protection is strikingly emphasized when we consider that the census reports of 1905 show that the average weekly earnings of men employed in all industries in the State of New York are but \$11.79; of women only \$6.54 and of children \$3.64.

"It is to the direct, immediate and permanent interest of all citizens that evil and harmful conditions shall be brought to light: that workmen be taught their dangers and how they can best protect themselves from injury; that enlightened and considerate employers shall be enabled to introduce the best protective

devices and methods, and that those who wilfully ruin the bodies of their fellow-men shall be exposed and compelled to change their ways " (see Report Illinois State Commission).

Under the act creating it, the Commission is charged with the duty of inquiring into the following matters:

1. Hazard to life because of fire: covering such matters as fire prevention, inadequate fire-escapes and exits, number of persons employed in factories and lofts, arrangement of machinery, fire drills, etc.
2. Accident prevention; guarding of machinery, proper and adequate inspection of factories and manufacturing establishments.
3. Danger to life and health because of unsanitary conditions: ventilation, lighting, seating arrangement, hours of labor, etc.
4. Occupational diseases: Industrial consumption, lead poisoning, bone disease, etc.
5. An examination of the present statutes and ordinances that deal with or relate to the foregoing matters, and of the extent to which the present laws are enforced.

The Commission is to recommend such new legislation as may be found necessary to remedy defects in existing legislation and to provide for conditions now unregulated.

The Commission is directed to present its report to the Legislature before the 12th day of February, 1912.

To attempt to cover the broad field above indicated would take a longer time. The Commission, therefore, will for the present confine itself primarily to the first subdivision, that is, to investigating the danger to life because of fire in factories and manufacturing establishments, paying particular attention to the problem presented by the so-called loft buildings in Greater New York and other large cities in the State where thousands of employees are at work daily, several hundred feet above the ground. By next February the Commission hopes to have completed its investigations into this important phase of the problems it has to consider, and to present to the Legislature a complete draft of a bill containing provisions that will remedy existing defective

and dangerous conditions in manufacturing establishments and so far as may be, guard against any menace to life because of fire in such buildings to be erected in the future.

The Commission will consider carefully the adequacy of the present system of factory inspection, making such recommendations as may be found necessary to ensure the regular, systematic, and thorough examination of manufacturing establishments in the State. The Labor Law will be examined, and revision suggested where necessary, particularly in order to obtain a speedy and at the same time effective compliance with its provisions.

By far the most important, and at the same time complicated problems before the Commission are the matters of proper sanitation and the prevention or checking of industrial or occupational diseases. To investigate these subjects alone properly would require much time.

On these matters the Commission will make as much progress as it can, expecting to be in a position on the 12th of February, 1912, to recommend some general remedial legislation covering those subjects and to prepare a preliminary report that will convince the Legislature of the imperative need of a continuation of the investigating along these lines by this or some other Commission.

All facts will be proved fully by proper evidence. It has been said by an eminent authority on some of the matters to be investigated by this Commission that while no one can properly question the right, as well as the duty of State interference with conditions which seriously menace the health and lives of those through whose industry the wealth of the nation is particularly created and maintained, "It is equally the duty of those who insist upon remedial legislation to establish beyond a reasonable doubt the actual facts of injurious conditions." To do this the Commission has obtained the services of experts on the fire problem and on the far more intricate and important problems of sanitation in manufacturing establishments, under whose supervision competent inspectors will be placed in the field. To present the facts fully will also require the examination of a great number of witnesses, employers as well as employees, because this Commission wishes above all things to be fair and just to the employer

as well as to the employe and to conduct all of the investigations so as to reach actual, indisputable facts. The Commission will hold numerous private and public hearings in the City of New York which will be announced from time to time, and will also hold several public hearings in some of the other cities of the first and second class, in this State.

After the existing conditions have been properly brought to light, the Commission will endeavor to obtain from experts who have made a careful study of these problems their opinion and advice as to the best method of doing away with such unfortunate and dangerous conditions as may be disclosed. The co-operation of labor organizations and others interested in improving the conditions of workingmen and women has been invited and has been promised.

The Commission is encouraged by the great interest that has already been manifested in its work. It desires at this time to express its appreciation for the kindly and willing offers of assistance and co-operation it has received on all sides. They will act as an additional incentive to make the work of this Commission of real practical value and benefit to the vast army of employees in this State whose safety and health are public and not class interests, and to bring about legislation based upon a thorough investigation into the actual conditions of industry which will be just and efficient.

Mr. Chairman, in accordance with the instructions in executive session, the Commission, as I understand it, expects to hold hearings on Tuesday, Wednesday and Friday of this week, Thursday being a public holiday, to be omitted. The Commission, as I understand, expects to hold its sessions from 10 until 1 o'clock, taking a recess for an hour, and then from 2 till about 5 o'clock.

At this time, of course, the work which is being done under the supervision of the experts to whom I have referred, has not yet been finished, so the present sessions of the Commission will be devoted to bringing before it an outline in the shape of the testimony of prominent witnesses as to what will be the subject of the Commission's investigation, together with actual facts produced by witnesses after their own personal investigations, showing conditions as they now exist in some of the factories in this state.

The VICE-CHAIRMAN: As acting Chairman of the Commission in the absence of Senator Wagner, I desire to say that the Commission at the outset desires to extend its heartfelt thanks to the counsel, Mr. Elkus, to his assistant, and to Mr. Morgenthau, and Dr. Keyes, and the other public spirited citizens that have so far given their time and attention to the Committee without hope of recompense, except in the satisfaction they will receive in the remedial legislation that will be brought about as a result of the Commission's deliberations.

Now, it has long been an established policy of the State to investigate questions of the magnitude of this particular one, to the end that proper legislation can be presented to the Legislature at its regular session. I might say that the history of the last ten years shows very clearly, in the Gas, in the Insurance, in the Fire Insurance, and in the Inferior Court investigations, that from the labors of a committee or a commission, such as this, the very best kind of legislation prepared ready for introduction, has come forth and been placed upon the desks of the members of both branches at Albany.

We must have the earnest and hearty co-operation of the citizens of the community to bring about the desired results in a situation of this kind. It is invited by the Commission to-day, and as counsel has well said, our purpose is to be of benefit to the employer as well as the employee, and we expect their co-operation.

I think it would be fair and fitting at this time before we proceed to have something on the record and let the Commission and counsel hear from Mr. Gompers.

Mr. GOMPERS: Mr. Chairman, and members of the Committee: I have read and concurred with those views of counsel, Mr. Elkus, presented on behalf of the Commission, and it impressed itself very strongly upon my mind as a document that goes to the root of the subject.

There is no necessity for extended remarks, yet inasmuch as it has seemed to be wise to ask me to say something,—it has always struck me very, very keenly, after all our boasts of progress and prosperity and civilization, the terrific price we are paying for it all — the price in the health and the life and the very existence of the people of our country.

The masses of the workers form, after all, the great sovereignty of the people of our Republic; the complexity of industry, as it has developed, in the past two decades, or more, has seemed to make it economical, or at least temporarily profitable for large employers of labor to permit conditions to grow that tended not only to destroy limb and life, but to impair and undermine health.

This is a Republic, and upon the sovereignty of the citizenship, upon the physical and mental well-being of the citizenship, depends the success of our Republic. When toilers work from early morning until late at night, work under unsanitary conditions, in unsafe workshops, and unventilated surroundings, with unguarded machinery, all of which helps to undermine health and strength and to deteriorate men—that which physically will deteriorate man, must have its baneful influences upon his mind and upon his activities, and upon the performance by him of his civic duties.

It is true, it seems, that at times the community's conscience requires a shock to arouse public activity, to secure changes and improvements and reforms. The fire of a few months ago, which showed that we had such a large number of workers that we had women to burn, aroused the people to action, gave an impetus to corrective legislation, as perhaps no other one thing could have done.

And yet, despite the fact that one hundred and forty-five human beings' lives were snuffed out,—the lives of those poor girls and women were comparatively a mere bagatelle to the hundreds and thousands of lives of our people which are destroyed every year in industry.

I have had a great deal of experience in the affairs of the country, and about my own state of New York. I have found that the ravages of the White Plague are not quite so sensational, are not quite so dramatic, and yet they are insidious and dangerous. I was very glad to have the opportunity, when the Governor of the State of New York tendered me the appointment as one of the Commission created by the Legislature, to act upon it. I was glad to accept it, and to the very best of whatever ability I may have, I propose to perform the service. I have a great many duties to perform among my fellow-workmen. I

hope to be able to be of some assistance to the Commission, and through the Commission to the people of the State of New York.

Mr. ELKUS: With your permission, Mr. Chairman, we will call Mr. Croker as the first witness.

EDWARD F. CROKER, called as a witness, being first duly sworn, testifies as follows:

Direct examination by Mr. ELKUS:

Q. Chief, will you tell the Commissioners just how long you have been in the Fire Department, what positions you have held, etc., so that we may have it upon the record? A. I was appointed fireman June 22nd, 1884, and went through the various grades of the department from time to time, until I arrived at the position of Chief of the department; I served in that capacity for twelve years and retired May first of the present year.

Q. During that time, did you make any study of the conditions of manufacturing in New York City, from a fireman's standpoint? A. I did, sir.

Q. Will you tell the Commissioners, briefly, just what occurred during that time that you were in the Fire Department — the changes that occurred, in the methods of manufacturing, the kinds of buildings formerly used, and the kind that are used at this time? A. The building formerly used, say twenty years ago, was the ordinary four and five story brick building, wooden floor beams, wooden floors, etc., up to the present class of buildings.

Q. There were no elevators in the old buildings? A. Very few; stairways were used — wooden stairways, not elevators.

Q. Did they have fire-escapes — were they fireproof as a rule or not? A. No, sir. They have gradually improved to the so-called fireproof building, which consists of buildings that you are all probably acquainted with around New York to-day, from twelve to twenty-five stories high.

Q. These buildings from twelve to twenty-five stories are what are called loft buildings? A. So-called loft buildings.

Q. They vary in size from twenty-five feet wide to one hundred feet deep, or more? A. The average is fifty to seventy-five feet.

Q. Wide, and the depth eighty-five or ninety feet? A. Yes, sir.

Q. Now, in these loft buildings, there are usually a great many occupants, are there not? A. Generally there is a different occupant on each floor.

Q. And in some of the buildings is manufacturing carried on on each floor? A. Yes, sir.

Q. Will you give us an idea of the kinds of different occupants — the different kinds of businesses that will be found in a ten or twelve story building of the kind that you have referred to? A. Manufacturers of ladies' shirt waists, manufacturer of ladies' underwear, manufacturer of ladies' cloaks, manufacturer of ladies' suits, and the manufacture of clothing.

Q. All under one roof? A. All under one roof.

Q. Can you tell me whether or not these people use machines — many of them power machines? A. They all use machines; yes, sir.

Q. How many employees are there in these buildings — in these buildings that you refer to? A. Anywhere from 150 to 300.

Q. On each floor? A. On each floor.

Q. So that sometimes in a ten-story building you will find the extreme would be, say, twenty-five hundred persons in one building? A. Yes.

Q. That would be almost a town in itself? A. (No answer.)

Q. Are these lofts open, or divided off by partitions — what kind of partitions are they? A. Most are open lofts, and they are divided off — if they are divided off, they are divided by $\frac{3}{8}$ inch pins.

Q. Now, about the material used in the manufacture of goods in these buildings that you refer to — what about that? A. All inflammable.

Q. Now, about the method of egress and ingress in these buildings — what is there so far as elevators are concerned? A. It all depends upon the size of the building.

Q. Just tell us. A. Take a 50x100 foot building. If it is on a corner, it will probably have two stairways, one on each street, and a passenger elevator.

Q. Will you describe the location of the stairs with references to the elevator? A. The stairway is generally built around the elevator.

Q. They wind around the elevators? A. They wind around the elevators.

Q. Now, as a rule, are the staircases divided from the elevator by walls and partitions? A. Some are and some are not.

Q. Now, will you tell us about your experience in these buildings, if anything is done as a rule to protect them from fire? A. Generally there is nothing done. They use the waste, oils and such things as that; oily waste especially is very combustible.

Q. I believe a great many of these employees smoke cigarettes and cigars? A. It is almost impossible to stop it; a cigarette is a tonic.

Q. They consider it a tonic? A. They consider it a tonic.

Q. Tell us about the fire-escapes — of the things you have seen? A. Very few of the factories have outside fire-escapes; very few; they have very few outside fire-escapes, and where they have them they are inadequate. They use the stairways. They call those things the fire-escapes; they also use the elevators, and they call them fire-escapes. An elevator in a building is generally a fire shaft.

Q. Do you mean to say that under the law they can permit an elevator to be called a fire-escape? A. They don't permit it to be called a fire-escape, but they use it as such and mark it as such.

Q. In the case of fire? A. In the case of fire.

Q. Aren't they required in a ten-story loft building to have exterior fire-escapes? A. It lies within the discretion of the Superintendent of Buildings — that is, in what they call a fire-proof building.

Q. In other words, if a building is fireproof, the Superintendent may not require them to have exterior fire-escapes; and in that case they are allowed to use the elevators and stairs? A. Elevator and stairs.

Q. In these various buildings where there are exterior fire-escapes built, access is had to them from the window? A. Yes, sir.

Q. What has been your experience, Chief, with reference to the use of these fire-escapes in case of a fire? Are they used at all? A. A great many will use them, but they are not used to advantage. Women, and especially children — girls, such as work in these buildings, cannot descend them.

Q. They cannot get down on them? A. Not readily.

Q. Is it your idea if they are to continue, they should be made with a regular staircase? A. With regular staircase, and made to extend away from the building — not close to the building.

Q. How far away? A. At least four feet.

Q. Is there any other suggestion that you have to give the Commission as to the use of fire-escapes? A. There have been some cases where fire-escapes, by being very crowded, have pulled away from the building. A fire-escape should be built into the building by having the floor beams extend out to the proper width.

Q. That is, the beams should extend out from the building and the fire-escapes supported on them? A. Supported on them.

Q. Now, about the terminus of a fire-escape — what has been your knowledge of that? A. A great many terminate in a court or in a rear yard, and it is absolutely impossible for the occupants to escape when they go down that far.

Q. That is, after they get down the fire-escape, they are in an enclosed yard? A. In an enclosed yard.

Q. What have you to suggest as a remedy for that? A. They should extend to, or have an entrance direct to the street; and in a great many cases, where the window is would make the best fire-escape by putting a door there, and running a bridge from one building to the other.

Q. From one roof to another? A. Or out to another street.

Q. From the rear of one building to the rear of another? A. By running a bridge.

Q. That would be very inexpensive? A. Yes, and make a very good fire-escape.

Q. That means getting permission, of course, of both parties, does it not? A. I believe so.

Q. With reference to the window or door leading to the fire-escape, should the window be cut down and made a door? A. Yes, sir.

Q. That should be made to open inward or outward? A. Outward.

Q. And that should be made compulsory; is that your view? A. In all these cases, it should be mandatory. I find in my experience in and around these buildings, that a great majority of the people who occupy the various establishments would rather

take a chance on the loss of life than spend five or ten dollars to prevent it.

Q. Is that your experience? A. Positively.

Q. How about the shutters leading to the fire-escape? A. They should not be allowed.

Q. They should not be permitted? A. No, sir.

Q. A fire-escape window or door should always be open? A. Always open.

Q. How should the window or door leading to the fire-escape be constructed? A. They should be set in metal frame.

Q. Do you recommend that? A. Yes, sir.

Q. Now, Chief, about the occupation of these buildings. In your experience in fighting fires, what have you found to be the condition of these buildings so far as their occupation is concerned — material and machinery on the floors — just tell the Commission what your experience has been. A. Some buildings you go into are kept nicely, but the majority of others you go in are unkept; they are dirty; they are unclean; their stock is strewn all over the floor. Where they use machinery there are no passageways whatsoever.

Q. Tell the Commission about the difficulties in fighting a fire of that kind. A. In a great many cases there is only about one door on that loft you can get in. Goods are piled up in front of the windows, in front of the doors, and you have got to use a battering ram to get into any of them.

Q. How about the passageways being blocked? A. Piled right to the ceiling. Many a time the firemen get into places in the night time and there is no room for a man to go through the passages.

Q. How about the passageway to a fire-escape? Do you find those blocked or open? A. Find them blocked.

Q. How about locked doors to the staircases? Have you found that? A. Oh, yes, plenty of them. The doors going to the roof are locked. They pay absolutely no attention to the fire hazard or to the protection of the employees in these buildings. That is their last consideration.

Q. What do you suggest should be done with reference to these locked doors, and things like that? A. There should be mandatory legislation to compel them to keep the doors unlocked

during the working hours. All doors should be opened up. Aisles should be kept clear, obstructions should be moved away from doorways, and windows and so forth; and in case of any violations of such a law there should be a severe penalty attached to it.

Q. Imprisonment or fine? A. You can't make it too heavy. You have got a class of people doing business constantly, not only in New York City, with whom you've got to deal severely, and give them to understand that there is the law, and they have got to obey it, for the protection of property and the people that they employ. If you don't have drastic legislation you can't get anything from them.

Q. What have you got to say about wooden partitions? A. If I had my say I wouldn't allow a piece of wood in sight in any buildings of any description.

Q. You mean in the shape of a partition or a table? A. In the shape of a partition, or window trims or door trims, or baseboards — nothing at all in the construction of a building should be of wood.

Q. Tell the Commission your reasons for that statement. A. The reason is because all wood is inflammable and it only adds fuel to a fire which may occur.

Q. Well, do you believe that there would be less loss of life if those rules were followed? A. I do, sir.

Q. Were you present at the fire of the Triangle Waist Company building? A. I was, sir.

Q. And you made a careful investigation of that fire, did you not? A. Yes, sir, I did.

Q. Now, just a word about that. Was that a loft building of the kind you described? A. Yes, sir.

Q. How many stories high? A. Twelve stories.

Q. And this fire was on one or more floors in that building? A. It originated on the ninth.

Q. And they had an out-door fire-escape there, didn't they? A. On the rear.

Q. And it led down into an enclosed yard? A. It led down into an enclosed yard.

Q. What did you ascertain were the facts there with reference to closed doors. A. Well, from what we could find — what was left of that place up there — I don't think there was any doubt

there was a partition inside of the doorway leading out into the Green Street side of that building, and from the indication of the number of people we found where that partition was, that door was locked, and the door that opened into it, opened on the inside.

Q. Was it locked with a lock and key, or a bolt? A. A lock and key, but it opened in.

Q. Was it a wooden door? A. Yes.

Q. Now, you referred in your testimony to the fireproof building. What has been your experience as to these buildings being actually fireproof? A. They are only so-called fireproof, fireproof by name.

Q. What is the actual fact, do they burn or not? A. They are not fireproof. They burn and they make a hot fire.

Q. Who says they are fireproof? That is a provision of law, isn't it? A. A provision of the law.

Q. Then, as I understand you, Chief, the materials which go into making these buildings do not make a fireproof building? A. No, sir.

Q. Well, is it possible to create, to erect a fireproof building? A. Yes, sir.

Q. Of what material would it be? A. Brick, stone or terracotta. Steel construction with metal trim and concrete floors. I would say eliminate wood, and use the steel trim and the concrete floors.

Q. Well, as I understand you, what makes these buildings known as fireproof buildings, non-fireproof is the fact that the trim of the interior floors are wood or inflammable material? A. Yes. Now, bear in mind the fact, counsellor, that the shells of these buildings may be brick and steel, and that they are advertised as fireproof, just to fool the public. But the inside of the building contains inflammable material and burns with great intensity.

Q. So that when a fire occurs the inside of the building burns out and leaves the shell which is fireproof? A. Yes.

Q. And it is your recommendation that if they want to have a fireproof building, a building that is absolutely fireproof, they should not have any lumber in it? A. Yes, sir.

Q. Now, can any reliance be placed upon these elevators as fire-escapes? A. No, sir.

Q. Why not? A. Because they can only carry a very few people in the first place, and they burn up quickly and the heat and smoke become so intense that the operator can generally make only one or two trips after a fire starts.

Q. After a fire? A. After a fire starts, and it has been my experience that in the excitement, after they leave the floor in which the fire occurs, they generally leave the door open, and people walk into the elevator shaft.

Q. That is to say they leave the door open and unguarded, and people fall down the shaft? A. Yes, sir.

Q. Now in this Asch Building fire did that occur or did the people jump down the shaft as a means to try to escape? A. Well, we found them in the shaft. We don't know how they got there.

Q. Found dead in the shaft. Now, when a fire occurs in New York City will you explain to the Commission how the Fire Department is informed of it, the system of alarms? A. The fire alarm system throughout the city is the fire alarm box which is on a corner. In case a fire is discovered, a citizen, a policeman or fireman or some one goes to the box and opens the door, which rings a bell. That is for the purpose of attracting the attention of the police. Inside the door there is a bell hook, and when you pull down that bell hook you give the alarm, the alarm goes into the telegraph bureau at Fire Headquarters. The operator at headquarters transmits it throughout the city.

Q. When you pull down that hook in the box at the corner, that does not give you the exact location of the fire? A. That gives you the exact location.

Q. It gives you the exact district location? A. Each box is numbered and each box is assigned to so many stations. For instance, this box at the corner of Broadway and Warren Street is station 65. When you ring that bell, they know exactly where it is, on Broadway and Warren Street. They will take it from the assignment book if necessary, but they all know the exact location in their minds, and the alarm, when it comes in, gives the exact location of it.

Q. Now, then, what has been your experience as to whether or not fire alarms come in as quickly after a fire as they ought

to? A. Are you talking in relation to the automatic fire alarm, or are you talking about the street box?

Q. I first want to know whether you find the street box fire alarm system sufficient in point of time in giving the alarm, as it is at present carried out, without any automatic alarm? A. The street fire alarm system, of course, is manual. That is to say, it is not automatic and it has got to be operated by some citizen or policeman or somebody. A fire may burn for a month and that box won't go off unless somebody pulls it.

Q. What do you recommend with reference to automatic fire alarms? They do have those in certain buildings, don't they? A. The different automatic alarms throughout the country — some states insist upon them, and others do not, — in a large majority of the cases work very satisfactorily. There have been a number of cases in which they have not proven satisfactory.

Q. They are on the principle that a certain degree of heat releases a spring? A. Yes.

Q. And the alarm sounds, and that works an automatic alarm which sends it into Fire Headquarters? A. It is according to the company. That alarm goes off in the building; it goes to whatever company's automatic alarm it is, and they transmit it to Fire Headquarters, and Fire Headquarters transmit it to the company.

Q. And these are all private enterprises? A. Yes, sir.

Q. And the Fire Department has nothing to do with it? A. No.

Q. And the owner may put them in or not as he sees fit? A. Yes.

Q. They charge a rental for them? A. They charge a rental for them.

Q. And the company itself has to maintain some system of communication with the Fire Department, the result of their own wire connection? A. Yes, sir.

Q. Have you any recommendations to make with the Commission or suggestion with reference to automatic fire alarms? Do you believe they ought to be mandatory, or whether they are of sufficient use? Would they save life? A. No, I don't think they would save life for the time being. Of course, it takes about one hundred and fifty degrees of heat before it will go

off, and one hundred and fifty degrees of heat is quite some heat, and I am sure you would have some smoke, and that almost everybody would discover the fire before the automatic fire alarm would go off. Where they come in, is where the building is closed up at night, when there is nobody in it, to give the Fire Department warning.

Q. Isn't it a fact, Chief, that in a great many cases the alarm of the fire comes to the Fire Department a comparatively long time after a fire has begun? A. In a great many cases.

Q. Well, take this very Asch fire — wasn't it fifteen minutes after it was started that the alarm reached headquarters? A. I couldn't tell you without referring to the records, except that I know it was quite some time after the department arrived there that the alarm was transmitted.

Q. After the department got there? A. Yes.

Q. Well, how did it come to get there without the alarm? A. The street box —

Q. And that was because the machine didn't work? Well, now, isn't it a fact that the alarm from the street box doesn't reach headquarters until a perceptible time after the fire has begun? A. Of course, if nobody is there at the time to set it off, why, you can't get it there.

Q. Now, have you any suggestion to make by which speedier alarms of fire could be sent to the Fire Headquarters? A. I don't know any other system, counsellor.

Q. Should there be instructions to employees or employers in factories particularly, or where people are employed in large numbers, office buildings, to send in alarms? A. Yes, I have always agitated that, because I claim there are a great many fires, a great many large fires that are caused by the occupant of the building trying to extinguish the fire without notifying the Fire Department Headquarters.

Q. You don't advise people to try to extinguish their own fire before they call the Fire Department, do you? A. An effort should be made to extinguish the fire, but they should not wait until the fire gets large before calling the Fire Department. The minute they discover the fire, they should call the Fire Department. If they extinguish the fire, all right, the Fire Department can go back home without any harm being done.

Q. Do you find in your experience that many fires gain headway and become serious, because the people attempt to extinguish the fires, and do not call upon the Department? A. A great many.

Q. Can you give us any instances of that? A. Well, there are so many of them I don't know as I can give you any data just at present on it.

Q. That leads us to the next subject that I would like to ask you about, and that is the methods of either fire prevention or fire extinguishment. Will you tell the Commission your experience with reference to those,—what you have found efficacious, and what suggestions you have to make? A. I have tried to find out the exact number of fires which we have in the United States, which is on record only in cities of over twenty thousand,—and there are three hundred and odd cities in the United States with a population of over twenty thousand. Out of those three hundred and odd cities last year the fires ran to over three hundred thousand, and the losses to over two hundred and fifty million dollars. The average loss up to the present time is close on to six hundred thousand dollars per day by fire, and I haven't any doubt that fifty per cent of those fires or even over, occur from want of judgment, carelessness—criminal carelessness and neglect. Now, a fire can be prevented much easier than it can be extinguished, and it can be prevented by proper supervision and proper inspection. Also, loss of life can be prevented by proper supervision, and proper inspection and proper drills and so forth.

Q. Well, now, stop right there for a moment, if you will, and tell us what you suggest when you speak of proper supervision or prevention. Will you refer to that more in detail? A. For instance, the cellars in tenement houses are generally dark cellars, and in a double-decked tenement house there are probably anywhere from twenty to thirty families, and that cellar is divided into twenty or thirty compartments, in which the tenants store things of all descriptions. For instance, they keep their wood in the cellar, and they go down there for things, and they make a light—sometimes they will take some paper and use it as a torch, and take the light into the

cellar, and throw it on the floor. That causes a great many fires. Every cellar should be lighted continuously. There are a great many fires caused in the same way in dark stairways and dark hallways. In hundreds and hundreds of buildings in the large cities and in other places, the hallways are dark, and these are the cause of many fires. In the factory districts, and these so-called loft buildings, the hallways and stairways are dark, and they should be lighted, and they should be kept clean from rubbish. You can go into most any of them at any time, and you will find the hallways and stairways filthy.

Q. That is in manufacturing as well as in loft buildings? A. Yes. Of course there isn't anybody responsible. You go into a loft building, and there are twenty different occupants in that building, and there isn't anybody responsible for the care of the hallway and the stairway.

Q. It would be your suggestion then that some one should be made responsible for the cleanliness of the stairways? A. Yes.

Q. And their being lighted? A. And their being lighted. That is one cause of fires.

Q. Now, what other methods of fire prevention? A. The removal of rubbish from the floors at the expiration of the business for each day. The accumulation of rubbish causes a great many fires.

Q. Then every day, after the business of the day is over, the floors and the stairways should be cleaned? A. Yes, sir.

Q. And the rubbish should be put in some receptacle for it? A. And be set in the street.

Q. Will you tell the Commission some of your experiences with fires caused by rubbish? A. Why, it is quite a common thing. You can go into any of these buildings, and you will see rubbish simply piled all over. Instead of the rubbish being swept and put in a corner, it is scattered all over the floor and piles of refuse put there. Hot ashes are put in wooden boxes, and that causes a great many fires. Cigarette smoking and cigar smoking in the loft buildings, and leaving inflammable material around, cause a great many fires. And matches cause a good many fires. In a great many of our department stores an employee will be discharged if matches are found on him, and cigarette smoking and

cigar smoking is prohibited. Matches should not be allowed to be carried into any such building as that.

Q. Matches? A. Matches. You can go into almost any of the department stores here, and if one of the employees is found with a match on him he is immediately discharged. Take for instance such stores as Wanamaker's, Simpson-Crawford's, Siegel-Cooper's. If the men are found with matches on them they will be discharged.

Q. You mean that is the way they stop smoking, by prohibiting the men from carrying matches? A. Yes, sir.

Q. You believe that would be a very good way of stopping fires caused by cigarette smoking and cigar smoking by prohibiting matches being carried? A. By prohibiting matches being carried.

Q. How can you stop the employees during luncheon, for instance, from smoking there? A. Well, a man can go out on the street and smoke. You don't have to walk far to get a light if you want to smoke a cigar or a cigarette.

Q. Now, have you anything else to suggest in the way of fire prevention? A. Well, I will say that the records will show in the Fire Department Headquarters, that fifty per cent of the fires every day in New York are cellar fires. Rubbish should be removed from cellars, and kept out of cellars. That is a common thing, and the cellars should be kept clear of rubbish; it should not be piled in the cellar.

Q. This very Asch fire was caused by rubbish, wasn't it? The fire started from a rubbish heap? A. No, it started under a cutting table, from the piles of their trimmings.

Q. That is the refuse from the table? A. That is the refuse from the table.

Q. Now, can you give us any other details about fire prevention? A. If they have got any rubbish existing in the cellar, you will find a gross condition of carelessness. If you go into some cellars of a certain class of people who live over on the East Side, you will be surprised. Fire drills should be made mandatory.

Q. I am coming to that; now that is another means of prevention. You think fire drills among employees in factories should be had? A. They should be had.

Q. Are there any factories in New York City that have fire drills? A. Oh, yes.

Q. Just what fire drill do they have, similar to the ones in the public schools? A. Yes, sir.

Q. That is, on a given signal all employees leave by designated places, do they? A. By one or more designated places. And the employees in a factory that is properly organized have a little fire brigade that they use, and they all go to their fire stations. In some they have fire buckets, buckets of water, and in others fire extinguishers. Some have big extinguishers. There are very many factories that have fire brigades for their own protection.

Q. Have you found such fire drills have ever been used to your knowledge? A. Such factories as that don't have fires.

Q. They never have a fire? A. No; they don't want them. People that have such things as that don't want them.

Q. Well, you do not mean that people want fires? A. I mean to say there are places where fires occur from a criminal cause.

Q. You mean they deliberately set a fire? A. I mean they deliberately set a fire.

Q. What percentage of those would you say there were? A. I wouldn't want to say because I do not know. You probably read in the paper the other day that they got a man that was one of a gang in Chicago. The man admitted they set over two hundred fires, and derived over a million dollars worth of property from those two hundred fires.

Q. Well, of course, that is covered by the criminal law? A. That is a criminal fire. You have got to add them to the total fires.

Q. Now, leaving that for a moment. Do you mean to say to your knowledge that these people who conduct fire drills and have fire brigades never have a fire? A. No, sir.

Q. And a factory of that kind you think has no chance of one? A. I would like to take you to a factory as clean as your parlor, a very large factory, employing over three hundred people. They have a perfect organization; it does you good to go into it. I can take you into others—I think if a woman went in she would have to pick her skirts up. You can hardly imagine a condition like that existing.

Q. Now, what you have just said about fire prevention, the greatest fire prevention is cleanliness? A. Is cleanliness.

Q. And you believe a great percentage of fires could be traced to rubbish, and that many fires would be prevented if the rubbish and waste were required to be gathered up, and the cellars were kept clean? A. No doubt about it.

Q. That, of course, is inexpensive? A. Very.

Q. The trouble at the present time is that there is no law which makes it mandatory? A. That is the idea.

Q. Now, in order to enforce a law of that kind that would require the inspection of buildings, or do you think that if one or two punishments, pretty severe punishments, were administered, the result would be that they would be kept clean? A. I think one or two punishments would be bully, a bully good thing, every once in a while. It is not much trouble to do that. The firemen do the bulk of inspection to-day, continually make inspections every few days; it is part of their duty to inspect the buildings. They go into the buildings continually, and then you get the exact location of the stairway and the elevators, and shafts. All you have to do is to go to the building in a locality and simply call an officer and ask him those questions and he is supposed to tell you.

Q. You believe that the Fire Department if it had authority to make the inspections for cleanliness and report it to the proper authorities—— A. I think the Fire Department has power now, has authority now, if it only had power to enforce punishments of that kind. It is a very long legal proceeding to get anybody punished for things.

Q. You mean now you can report to the authorities and then they bring a suit for a fine, is that it? A. Yes.

Q. Then the case has to be brought in the Municipal Court, and there has to be a trial, and a man's word is disputed and questioned? A. Yes.

Q. What should be done, as I understand you, would be that it ought to be made a criminal offense? A. If there was an amendment making the act criminal.

Q. By asking for a warrant? A. By asking for a warrant, and to such an extent, if necessary, to close the buildings until the man has removed the cause.

Q. That is to say, if the fireman reports that he finds rubbish on a floor which he considers dangerous, you would be of the

opinion that the Fire Commissioner ought to have authority in such a case to order the removal of that stuff at once? A. He has got that power now, but that is all. All the power he has is to order it removed.

Q. And if they do not do it, he has got to bring a suit? A. He has got to bring a suit, and that takes time, notice to the Corporation Counsel, and having to bring an action, and during all that time the rubbish still remains there.

Q. But if the Fire Commissioner had power to enforce his orders that couldn't be? A. A man couldn't do that.

Q. Then, in that case, what would your idea be, what could be done? A. I should have a notice of recommendation from the Fire Commissioner served on this man to remove any rubbish, and then if he finds that he did not remove the rubbish, just put a sign on the building, "Dangerous; closed by order of the Fire Commissioner." When he shall see fit to comply with the Fire Commissioner's request, take the notice down.

Q. Of course that is a pretty summary method, isn't it? A. The only one that can do it.

By Commissioner DOWLING:

Q. Has not the Board of Health power to do that? A. The Board of Health has got power to close the building, and the Board of Health has got power to act.

By Mr. ELKUS:

Q. The Building Department has that power if the building is unsafe, or is deemed unsafe to life? A. That is only for construction.

Q. But that has the same effect as the suggestion you had in mind? A. Yes, sir.

Q. That would be practically extending to the Fire Department the same power? A. Yes, sir.

Q. What percentage of fires would it prevent, because of this rubbish and waste being left around in the manner you described? A. Fifty per cent of the fires are caused by carelessness one way or the other.

Q. But practically starting with rubbish? A. Yes.

Q. Will you tell the Commission what you consider a proper fire drill to be used? A. The room should be wired with electric bells for the fire drills; that is the only way you can properly drill, by the bell system, or the electric horn system. Many of the larger factories where they have plenty of noise use electric horns like you have on automobiles.

Q. Claxton's? A. Claxton's, something like that, and on each floor or room, a man or a woman in charge of so many. They have men at the head of the stairway and at the foot of the stairway and they keep everybody in line, and prevent rushing or pushing and to keep them moving quickly.

Q. Having a certain number of people as monitors? A. As monitors. That is a plan which has been carried out, and which works very satisfactorily.

Q. And there are certain people designated to take charge of stairways and elevators? A. Some on the roof, and some at the stairways, and some at the elevators, according to the means of exit they have in the building.

Q. Now, have we covered what you desire to tell us about fire prevention? If we have, I will take up what are called fire appliances. A. I think you have covered that in pretty good shape.

Q. Are appliances to put out fires in your opinion desirable? A. Yes, sir. I think every building, no matter whether it is a home, or a factory, or a loft building, should have some means of extinguishing any small fire which may occur.

Q. What do you suggest, hand-grenades or standpipes? A. What you call hand-grenades I wouldn't have; they are very detrimental and dangerous because the liquid in them for the purpose of extinguishing fire can be very readily dumped out; I have known of cases where they have put inflammable oils in them and in case a fire occurs they use those fire grenades to help it on.

Q. So you do not approve of those? A. No; but fire extinguishers and fire pails are desirable.

Q. Fire pails with water in them? A. Yes, where the buckets are enclosed. They have tanks, I should say, with buckets inside, where they always can be reached.

Q. You think that ought to be made mandatory in every building? A. Yes, in every loft building, and where a lot of people are employed. There should also be hose connection on each floor, long enough to cover the entire floor, and when the Fire Department arrives at the fire, they can connect that standpipe with the street, open the valve in the street, and the water goes up through. The firemen go up on that floor, or the floor above, or the floor underneath.

Q. Are standpipes at all mandatory under the law? A. Yes, sir.

Q. For buildings of a certain height? A. For buildings of a certain height.

Q. Have you seen standpipes used in cases of fire in a building? A. Yes, they worked very satisfactorily.

Q. Have there been cases of the hose being rotten? A. Yes, that has happened, we have found the hose pretty bad, but the hose that is put into those buildings is not supposed to carry a great deal of pressure; they are only put in for house purposes. When the Fire Department arrives they always carry their own hose.

Q. In case there is no standpipe, the firemen have to go up to the floor in which the fire is — if there is a standpipe they have to fasten their own hose to the standpipe? A. They always do.

Q. They always do that? A. Yes. The only hose that they use in buildings of that sort is the ordinary linen hose; of course, that is not supposed to stand any great pressure. But when the Fire Department arrives they use their own rubber hose. Often when they arrive at a building they find the hose cracked.

Q. Have you any remedy to suggest in regard to the linen hose or what should be used? A. That is only meant for what we call a tank pressure.

Q. That is pressure from the roof, isn't it? A. That is pressure from the roof.

Q. Have you found any factories that had no appliances at all for preventing fire or extinguishing fire? A. A great many of them.

Q. In New York City? A. A great many of them.

Q. With absolutely nothing? A. With absolutely nothing.

Q. Where a number of people were employed? A. Oh, yes.

Q. And where they were not required to get any by law?
A. Yes, the law requires it, and as I said, the only thing is to have the Corporation Counsel prosecute them.

Q. And there are so many cases and it takes so long to bring them up, that we find it practically a dead letter? A. Yes, without any criticism.

Q. I understand, we are not criticising anybody. The point about that would be that some summary method ought to be found to enforce — A. (Interrupting.) That is what I was getting at; the Commissioner should have mandatory power.

Q. That is to say, if he ordered the placing of machinery of any kind to prevent fire, and if they did not do it, he would close the building after a certain amount of notice? A. Yes, sir.

Q. Giving the right to the owner, I suppose, to review that in some way, if he felt that he was not properly treated? A. He could review it, but the building is closed in the meantime; he cannot open it. The way it is now, they review it and the building is still open and the occupants of that building are still subject to the danger of fire. The other way we have got the building closed; they are not subject to the danger, and let him review it.

Q. I suppose if that were done, if there were means of preventing fire, or putting out fires, you would not have nearly as many fires? A. No, sir.

Q. Of course there is another problem you have with loft buildings; that is, getting water up to a certain height. How high are you able to force the water? A. Any height they can build so far.

Q. Provided you can get standpipes? A. Yes; there are always standpipes in those large buildings.

Q. Are they always in good condition? A. Always in good condition.

Q. You are familiar with the sprinkler system, so called? A. Yes, sir.

Q. Are you in favor of the sprinkler system? A. I am.

Q. Would you favor that some kind of sprinkler system should be made mandatory in certain buildings? A. That would all come under the fire protection laws of the Commissioner, if the Commissioner ordered extinguishers or stand pipes.

Q. You think it should be left discretionary with the Commissioner to order a sprinkler system, if he felt it desirable in certain buildings or certain lofts? A. Yes.

Q. How would you feel about a law which required a sprinkler system in buildings over a certain height and size — a mandatory law? A. Well, you may take a two-story building; that building may be full of cotton or jute or hemp. There should be sprinklers in that.

Q. Even if only two stories high in that case? A. Yes.

Q. So you think in New York City it should be left to the discretion of the Fire Commissioner? A. Yes.

Q. And that his power should be absolutely mandatory? A. Yes.

Q. In saving life have you anything to suggest beyond the fire-escapes being constructed in the form of stairs instead of ladders? A. Yes. I think that a great many of the fire-escapes on buildings to-day are only put up to be called a fire-escape. They are absolutely inadequate and absolutely useless. There are a great many buildings that have straight ladders on them, and it is absolutely impossible for a woman to climb down them.

Q. Outside of changing the ladders have you any other suggestions to make about egress in case of a fire? A. I was always very much in favor of what they call a fire tower. It is built independent of the building for the entire building, and if the building were destroyed will still stand. There are no entrances whatsoever from the building to the tower. You have to leave the building, come around here (indicating) and go out there (indicating) to get into the tower.

Q. That is, your tower is on the outside of the building or on the interior? A. You can have it either one you want.

Q. But it is separated by a fire wall? A. By a fire wall.

Q. Are there stairs in the tower? A. Yes.

Q. To get in there you would have to go through a door? A. Outside.

Q. There would have to be a doorway or space in between? A. They generally have a platform. In the Brunswick Building at 27th Street and Fifth Avenue they have one, and in the Bellevue-Stratford Hotel in Philadelphia you will find a good one.

Q. That is what is called the Philadelphia Fire Tower?

A. Yes, sir.

Q. What else have you to suggest about that? A. Such towers are the best means of escape that I know of, the safest means.

Q. How about buildings that are now in existence? Of course that could only be done in case of a new building? A. Well, there are a great many of the old factories; I don't see it would be a great deal of hardship to build a tower right inside of the building.

Q. You think it could be done? A. Oh, yes.

Q. Without practically requiring a new building to be erected? A. This fire matter and loss of life matter not only in New York, but throughout the country, is right down to dollars and cents against human life. It does not make any difference which way you put it. You can go in factories already erected, or factories about to be erected, and say, "You have got to build a fire tower in that corner which is going to take 100 square feet." He will commence to cry right away, "I cannot give so much space; I rent my place at so much a square foot; I cannot get the interest on my money. I cannot do this." It is all from a money standpoint. They do not care anything about the human life in the building as long as they get their money out of it.

Q. There are forms of fire-escapes besides interior towers?

A. Yes; there is a nice balcony fire-escape. There is a fire-escape I saw around on a great many buildings, which I explained before, and was built away from the building about four feet.

Q. With reference to stairs running around an elevator shaft, as a source of danger, is that a bad thing? A. A bad thing.

Q. The stairs ought to be separated entirely from the elevator shaft? A. Yes.

Q. And the elevator shaft ought to be an enclosure by itself?

A. An enclosure by itself. I would not have any around stairs.

Q. You mean the stairs that wind around? A. Yes.

Q. How could you have them otherwise? A. Straight away.

Q. There are staircases which can be built where the staircase is entirely enclosed by a fireproof wall? A. Yes; but you have got your entrance leading right into your loft, where the fire may originate.

Q. There is nothing to help there, is there? A. No.

Q. Unless you have a separate entrance that is not connected with the loft. A. I would have that stairway built in one corner of the building as they are to-day, but I would not have any doorways enter the building. I would have the occupants leave the tower and come around outside to get to the building.

Q. With reference to saving life after a fire occurs, the Department does use fire nets, doesn't it, where people have to jump? A. Yes.

Q. Have those proved useful, or are they not strong enough, or have they been able to make them strong enough? A. They are made as strong as they know how to make them, and they has been very satisfactory. We have never had one failure up to the Asch building.

Q. What happened there? A. They went through the net.

Q. What was the reason of that? A. The extreme height.

Q. That is because the bodies came from such a height the net could not hold them, or did the material give way, or did the people who held the nets? A. Both; they all went in a pile together. It would be impossible to hold those people as they fell there; when they hit the sidewalk or iron gratings, the impact of their bodies was so great they drove right through the iron gratings into the cellar.

Q. Just describe to the Commission the fire nets used at the Asch fire. They are held by how many people, and how large are they? A. They are ten feet in circumference, and they are held by ten or twelve men, or more if you can get them around it, and you can catch — I have seen people time after time jump from the fifth, sixth or seventh floor and not get a scratch.

Q. In this case, although they were held by the same number of people, and the material was strong enough — strong as it could be — by the way, what are they made of? A. The best canvas that can be purchased, and they are hung on springs. When you strike into the net you do not get a sudden jar, but get a spring effect. The rim is heavy steel.

Q. In the Asch fire the net went right down with all the people holding it? A. Yes.

Q. From the impact of the bodies? A. Yes.

Q. Have you any suggestion to make to the Commission with reference to the different kinds of fire nets which would hold this impact of the body? A. I do not think they could manufacture anything that would stand the impact of a body from that height.

Q. Would it be possible to have a fire net on poles, for instance, that would give enough way to it, so that a body coming from a great height would be able to sag enough without breaking? A. The time you get that erected and ready for the people to jump, they would be burned to death. You have to have something for immediate use. They ought to have something there they can get at in case of necessity before the arrival of the Department.

Q. That is to say, there ought to be a way of getting out before the Department got there? A. Oh, yes; you cannot wait. Like the Asch building fire, they could not wait until the arrival of the Fire Department, even if we had the appliances. They were jumping out of the windows before the department arrived.

Q. So that as a practical matter if people are obliged to jump out of the windows of a loft building which is over five or six stories in height, there is no way of saving their lives? A. Well, I won't say five or six.

Q. I say above five or six, or seven or eight? A. Seven or eight stories high, if they jump, I don't know of anything you can manufacture that will hold them. I saw it figured out for a body weighing 150 pounds, they struck over two tons from that height when they hit the sidewalk. I don't know but it was over that.

Q. You know what so-called fire walls are, do you, in a factory building? A. Yes.

Q. Will you describe to the Commission what is referred to as a fire wall? A. There is supposed to be a wall dividing off a large loft, to be built of sufficient strength to retard any fire which may occur in one side or the other.

Q. And that is a wall that is built across the loft? A. Yes.

Q. With a door of communication — a fireproof door? A. Some have doors, automatic doors; some have swinging doors. The regulation is an automatic self-closing door.

Q. What is your opinion about these fire walls? A. I think they are a first rate thing if the wall is properly put up.

Q. Of course the objection to that is that it divides up the loft space? A. Yes.

Q. Are there cases where fires occur from spontaneous combustion, to your knowledge? A. Yes.

Q. That is largely from rubbish, isn't it, also? A. Yes; rubbish and oily waste, spontaneous combustion. It does start in cotton, cotton waste, hemp, and if it gets wet, soft coal.

Q. Have you read the Sullivan-Hoey bill that was passed by the last Legislature? A. Yes, I think I am acquainted with the bill.

Q. You are familiar with the provisions of it? A. Yes.

Q. Now, with reference to this bill, will you tell the Commission your views as to whether it is a good bill — I mean whether its provisions are such that would be of benefit? What criticism you have to make of it, if any? A. In relation to what section?

Q. Well, for instance, the section which provides for the establishment of a Bureau of Fire Prevention. A. Take section 756 of the present Charter which gives the Commissioner, I think, as much power, if not more, than any Commissioner in New York City. With a little additional legislation giving him mandatory powers to enforce the laws by closing the buildings, and mandatory power to order fire drills of the various employees, I think the Commissioner has plenty of power.

Q. Without any legislation? A. There is not any doubt that section 756 gives him more power than the present Charter to-day.

Q. You think the Commissioner under the present law has full power, but no proper means of enforcing it? A. That is the idea.

Q. If he had mandatory power of enforcement, he could prevent, or take means to prevent a great many cases of fires which have occurred? A. Yes.

Q. Now, with reference to these loft buildings which you have described, and the different kinds of manufacturing carried on and in which there are numbers of people, have you anything to suggest to the Commission with reference to the limitation of

the use of those buildings or the limitation of the number of employees on any one floor? A. I do not quite understand that.

Q. For instance, there are ten stories in one of those buildings; would it be a proper thing, for instance, to say that manufacturing should only be carried on in four or five stories, so as to prevent the numbers of employees in the building being as large as they are, and to prevent the different kinds of business being carried on? A. Well, of course, by doing that you are going to drive business away from New York.

Q. So you would not be in favor of that? A. No, sir; because such manufacturers can go to Jersey City or down in Long Island, outside of New York, and go into a frame building.

Q. You were speaking of section 756 of the Charter; do you mean 762? A. 762, I should say.

Q. That is the section which I have here now, a printed copy of it? A. Yes.

Q. Does not that only apply so far as the power of the Commissioner is concerned to fire appliances? He would not have any power to order a fire drill under that section? A. No.

Q. He would not have any power to order the removal of waste or rubbish under that, would he? A. Yes, sir; that is what I would say. I would give the Commissioner power for fire drills.

Q. And removal of waste? A. He has plenty of power under that section.

Q. Under that section 762, or any other section, has the Commissioner or the Fire Department any power over fire-escapes? A. No; that all comes under the supervision of the Department of Buildings.

Q. For instance, take this problem: a fireman goes to a factory and finds the means of getting to a fire-escape all blocked with material, has he any power over that? A. No; he reports that case to the Fire Commissioner, and the Fire Commissioner reports it to the Department of Buildings, and that is all.

Q. That is all that is done to it? A. Yes.

Q. Take a building that is built in New York City, is there any means in any department which you know of, or any method by which it is found out whether or not that building is adapted

to the purpose for which it is to be used — that particular loft?
A. They don't build them that way. They put up a building and that is all. They will let any Tom, Dick or Harry, any kind of manufacturer that comes along, go in. They don't care what it is, as long as they can lease the loft.

Q. Would you favor some legislation which would require, before a man may use a loft built for a particular purpose, that it should be licensed in some way, or permission given after inspection? A. Well, I don't know. I would have to think that over, but I am not in favor of taking a light loft building, built for light manufacturing, and putting heavy printing presses and heavy machinery in that building.

Q. In other words, you would not want to put a dangerous factory or manufacturing establishment with ones that were not?
A. No.

Q. What would you do — segregate them, set them apart, those that are dangerous? A. For heavy manufacturing, they should go into buildings which are built heavy enough to carry it. Nowadays you can go into a loft built for light manufacturing, such as sewing machines, and if a printer comes along and wants to put great heavy presses there, he will jack them up and put them in.

Q. And there is nothing to stop him? A. Nothing to stop him.

Q. No public body or public official has any authority? A. The Building Department places the floor load. In all probability they will tell the printer, "You must place your presses here, or place them over that line of girders."

Q. The Building Department is responsible that the building is safe, and that the floor has the carrying capacity? A. The fault in New York City is that there is nobody responsible for anything. The Fire Department is not responsible; the Building Department is not responsible; the Police Department is not responsible; the Health Department is not responsible. If anything happens they are all stepping from under.

Q. In other words, when anything happens, each one blames it on the other department, and it would be your idea, and your recommendation to the Commission, that the responsibility should

be fixed upon some one particular head of some one department?

A. Yes.

Q. And at the same time give him the corresponding power?

A. The Asch Building fire started with the Fire Department. The Fire Department says, "Our records are all right; everything we ordered was complied with." The Building Department says, "Our records are all right." The Health Department says, "Our records are all right." The Police Department have not got through investigating yet, and I don't think they ever will and nobody is responsible. There are just as many factories in New York in the same condition as the Asch Building was and probably is to-day.

Q. Mr. Porter suggests this question to be asked, Chief: take a building that is ten stories high, occupied by ten different tenants, all under different responsibility, each one having its own employees, how could you have a fire drill in which all the employees would co-operate? A. In that case they would have to co-operate.

Q. How could you provide for that? A. I have provided for it in a number of cases. I have gone through such a factory and got their names to a contract that they will drill their employees.

Q. That was a voluntary act on their part? A. Yes.

Q. That is, they agreed to drill their employees all in the same way at the same time? A. Yes.

Q. Does it take much time to instruct these employees in the drill? A. You can take a building with 300 or 400 people in it, and turn them out in a minute, or fifteen or twenty seconds.

Q. I mean, does it take any time to train them to do it? A. No, sir.

Q. You mean it is not any serious question of taking up the employees, or the employers' time? A. No; go in a building at two minutes of twelve, at twelve o'clock you will have the entire building out.

Q. I suppose it would not take more than ten minutes a month, would it, to install a proper drill? A. No, sir.

Q. Now, take the fire-alarm system, how would you require that should be put in, and who would be responsible for it, in order to start this drill in case of a fire? A. They would have to put that in.

Q. The building itself, or the tenants? A. The tenants; there would be a system on each floor, connected with push buttons. If you wanted the entire building, push every button, or if you only want to drill one floor or two floors at a time, connect it in the same way.

Q. If a fire occurred, somebody would push a button, which would communicate to all the floors, and all the people would go out? A. If a fire occurred on the ninth floor of a twelve-story building, it is not necessary for everybody to rush out. The building is not going to burn down in a minute. And that is what you want to drill the people for; it is not so much the fire as it is the panic.

Q. You believe a drill conducted along these lines and made mandatory would stop the panic? A. Yes.

Q. Have you ever had any experience with a drill in the actual case of a fire? A. Only by school children.

Q. And, of course, in that case the children have marched out just as though there were no fire? A. Yes.

Q. So the point is to so drill them that they do not know whether there is a fire or not? A. Both ways.

Q. Then with reference to the openings in floors in buildings, have you made a study of that, as to whether that is a means of spreading the fire? A. Yes.

Q. How about requiring solid floors in buildings? A. Well, as much as possible; a great many are used for manufacturing purposes, and they have to run their shafts through, and pulleys through, from one floor to another, but they should be protected as much as possible.

A COMMITTEEMAN: I want to ask the Chief what he thought of a law preventing a man from recovering in the case of a fire due to a violation of the ordinance, or law?

The WITNESS: I think that before any insurance was paid on any losses, that there should be a law prohibiting the insurance companies from paying such losses until such time as an investigation can be made.

The COMMITTEEMAN: Where it is in violation —

The WITNESS: (Interrupting.) It makes no difference whether it was in violation or criminal intent; they should have an investigation and get at the bottom of the facts.

Q. Have you any recommendation to make, Chief, with reference to buildings at present unsafe? A. That seems to be quite a problem to go into; there are lots of them. I don't know how you are going to get at them to make them half way safe. There are a number of ingredients on the market which they claim will make them fireproof; whether that is so or not, I don't know. There is a paint called fireproof, and I saw a test of it; but if you start in on that, some one will commence to holler, and you will be brought on the other end.

Commissioner GOMPERS: During your testimony you suggested that judging from the position of some of the bodies found in the Asch fire, the doors were closed or locked. Does that system of locking doors prevail to any extent in these loft districts?

The WITNESS: Just at the present time I do not know as I can say yes or no; but I know that shortly after the fire, and just before I retired from the Fire Department, a great many were still locked. It is safe to say that you can go through a number and find many of them locked.

Q. Why are they locked? A. Generally for the purpose of preventing theft.

Q. Theft by employees or by outsiders? A. By the employees standing in with outsiders.

Q. What is your opinion as to the locking of doors of factories or lofts even to protect employers from thefts by employees?

The WITNESS: Why, if an employer thought that he was getting robbed, he should take some other means of protecting himself, and not have the doors locked.

Mr. ELKUS: Such as a watchman? A. Some such way. There are doors on the market — a patent door, which you can close from the outside; from the outside it is locked, and also from the inside; all you have to do is to pull a latch and you open it.

Q. It has no catch on it at all? A. No, sir.

Q. You just push it open? A. Yes, sir.

Q. Chief, how about indicating the existence of fire-escapes by a red figure, are you in favor of that? A. There should be a red sign to indicate the fire-escape, the stairway, and any other exits that are used. At this time of the year a great many buildings are used at night, and in such cases there should be a red globe.

Q. Have you heard of the "down-and-out chute?" A. No, I have not; I do not know it by that name.

Q. They are something like the "Chute-the-Chutes" that they have at pleasure resorts; some one suggested to the Commission that these should be used as a means of escape in case of fire.

A. In many schools throughout the West they use them satisfactorily, but they are only three or four stories high. I don't know what the results would be if they had to go down eighteen or twenty stories.

Q. You don't think they are practical above three stories?

A. I would not care about going down in one.

Mr. ELKUS: The Commission is obliged to you, Chief, for your testimony.

Mr. CROKER: I thank you, gentlemen, and if I can be of service to you I will be glad to do so.

Mr. ELKUS: We will probably call on you later, Chief; when we go through this testimony, we may call on you again.

Mr. CROKER: I am very much interested in this work, gentlemen, and any time that I can be of service to you, I shall be very glad to have you call upon me.

The VICE-CHAIRMAN: The Commission stands in recess for one hour, and will reconvene in Part Twelve of the Supreme Court, County Court House; that is, the building at the back of the City Hall.

The hearing to-morrow morning and afternoon will be held in this Chamber; and as has already been announced, there will be no hearing on Thursday. On Friday there will also be a hearing in this Chamber.

Recess taken until 2:15 P. M.

AFTER RECESS.

Commissioner GOMPEKS: Please come to order.

LEONORA O'REILLY, a witness called, being first duly sworn,
testified as follows:

Examination by Mr. ELKUS:

Q. Miss O'Reilly, have you given your full name to the stenographer? A. Yes, sir.

Q. What is your business or profession? A. My business is shirtwaist maker; my profession, labor agitator.

Q. That is, you actually worked making shirts for eighteen years in this City of New York? A. This city.

Q. And after that you became what you call a labor agitator? A. Yes.

Q. That is, you are an officer of the labor union, I presume? A. In the league made up of unionists—those who believe in unions.

Q. Now, Miss O'Reilly, at my request you made an inspection of the various factories or places used for manufacturing in this city recently, did you not? A. Yes, sir.

Q. And you did that yourself? A. Yes, sir.

Q. How long ago did you make that inspection? A. The last inspection was made on Friday of last week.

Q. And you made other inspections in the week preceding that or within the last two weeks? A. Yes, sir.

Q. So that the conditions which you are going to tell us about are practically those that exist to-day? A. Yes, sir.

Q. Right in the city of New York? A. Yes, sir; New York city and Greenpoint.

Q. New York city and Greenpoint. How many establishments did you inspect? A. Ten.

Q. Will you tell us the ten kinds of establishments that you visited? A. I limited these ten inspections to one business, do you mean that?

Q. What kind of business was that? A. The manufacture of human hair.

Q. Will you tell the Commissioners what human hair is made of? A. The manufacture of human hair means human hair, hemp, wool and some other things of that kind.

Q. What are they manufactured for — for what purpose is it used? A. For wigs, moustaches, ladies' hair and all wigs they make for such purposes; everything in the nature of hair.

Q. These are the things ladies use as puffs? A. And men, moustaches and wigs.

Q. What I mean to bring out is that they come in personal contact with the persons who buy them — they wear them?

A. Not all; you mean the people wear this hair?

Q. No, no; the people who buy them use them for wearing on their person. Did you examine the factory on Mangin Street?

A. Exactly.

Q. In the Borough of Manhattan? A. Yes.

Q. What was the number? A. I could not tell you; I don't remember; it is at the corner of Delancey and Mangin.

Q. 183 Mangin? A. I do not know whether that is the number or not.

Q. Was that on one floor of that building, or the entire building? A. Part of a loft.

Q. How large a building — how many stories — how high?

A. That was on the seventh story, and there was one loft above.

Q. Was there an elevator in the building? A. Yes.

Q. Now, you say that this was on the seventh floor — A. Yes, sir.

Q. How large was this floor — this seventh floor — how wide, and how deep — was it a single or a double building? A. So far as I recall a single building.

Q. About 25 feet wide? A. I should say, not knowing the dimensions, the room in which the hair manufacturing was carried on was as large as this room, inside of that railing (indicating).

Q. That is about 25 by 15. Now, tell us what you saw there. How many people were in there and what were they doing?

A. Might I tell you something about the hair manufacture to begin with?

Q. In your own way. A. What we have to understand is how the hair comes to us and all the processes it goes through. The hair is generally brought over from other countries, and the most

hair that we get is Chinese hair. Chinese hair can be made over into any kind of hair that is wanted by the market, whether plain or curly hair, or curly hair for colored people. The hair coming in is what we call disinfected; that is, covered with a perfumed powder, and when you get it out of the cases you have to shake this powder out. This is one of the first things done. It is the shaking of that powder out that keeps the whole place full of powder all the time the people are working, and then after that it is washed.

Q. What kind of powder is it? A. It used to be—I told you, I said, that eighteen years ago I was a waist maker. The reason I know so much about this particular thing is that my first work was going into a hair place to learn that work. In the old days they got a young school girl, and they did it in the tenement houses, where this work is sent out from the factories to the tenements; children are taught the art of hair making. The children are brought in after school and taught how to weave hair, so that I know the processes through which these things go. All the hair which comes from China has a scented powder. I don't know what it is, but it is called a disinfectant, and it is shaken out, then the hair is put in large tubs or vats and washed to get the grease out of it. After that, it is dyed whatever color is wanted. If you want to make this hair from a straight color to a colored hair, you have to hang it on ropes and put it through a process which brings it out to what you want; that is going on in different spaces. The space here is where the powder was shaken out and the hair handed over to that corner (indicating) where it was put into large tubs, boiled and cleaned.

The hair was all over the floor in that space where it had been pulled apart, and men are working in that corner. That part of the work the men do, the washing and dyeing of the hair. After that, it comes over here, and all around this place are lines where the hair is hung up to dry, and then after it is dried sufficiently it is taken down and woven into long yards and yards of hair that is made into switches. The men do the dyeing and washing.

Q. Who does the weaving? A. Women.

Q. Girls or women? A. Well, very few of them. I should say that I could not go into the tenement house district. In the

tenement house district you will find that the children are taught by their mothers to do this, because it is so simple. It is one of the trades that you had to follow in its rough stages into the homes of the people, because there is very little weaving apparatus—there are two sticks and three spools, and it can be taken up and rolled up.

Q. In this trade you just described—have you now stated in a general way the way this hair is manufactured? A. These are the processes; there is another thing, the dressing.

Q. Who was that done by? A. Women.

Q. In the same place? A. Yes, and that is very often taken home, too.

Q. And done at home? A. Yes.

Q. They take it into their homes? A. Yes, sir.

Q. And work there where their families are? A. Yes, sir.

Q. Miss O'Reilly, in this place in Mangin Street you started to tell us about—in that particular case, tell us the conditions you saw there; how many men were employed, how many women were employed, and the conditions as you found them as to dirt and cleanliness? A. There are about thirty people there now; they had sixty people in their busy season; this is their slow season. There is a change in the fashion here, so that they do not know how to proceed for a little while, but switches are always worn, so they make them.

In one corner was the fire, and that was like an open fire, a stove—a coal fire, on which the stuffs were boiling that they do the cleaning with. Right as you came in from the elevator, there was very, very little room to get around, and dirt and powder and everything I could imagine was piled up.

Q. On the floor? A. On the floor, and under the tables; yet they said they got rid of that twice a week.

Q. But not every day? A. Not every day. And in the hall below the dust and dirt and hair was all over everything. It is like going into a place where you find hair on everything. The girls wash and eat their dinners at the table where they worked. There is no dressing room nor lunch room. That prevails in the hair trade.

Q. You state they were doing this sort of work when you got there? A. Yes.

Q. And what was the condition as to health; did they have kettles on the fire? A. Yes.

Q. Boiling the dyes? A. Yes.

Q. Open or closed? A. Open.

Q. Did any odors come from these kettles? A. Yes, sir; there are always odors from dyes.

Q. Were the windows open or closed? A. They are allowed to keep them open, but the odor is bad, and the people say that they are kept open because the odor is bad here.

Q. Is there anything further about that place? You say they eat their lunch right at the table where they do their work — there is no lunch room nor retiring room? A. No.

Q. What about the sanitary condition? A. That is very bad. There is an open sink there and the water is used for washing and drinking. The toilets are next to it; the conditions are filthy.

In the same building, just below that floor in the same building, there was carried on the manufacture of jelly candies. If the conditions could be worse than they were in the floor above, they would be found in this candy place. The candy place was on the fifth floor; between that and the seventh floor is another floor where they make boxes.

Q. Did you go into that factory where they made the candy? A. Yes.

Q. When was that? A. Last Friday, I think.

Q. Please tell us about that. A. The girls were very young.

Q. Were they all girls? A. There were two men and ten girls. Some of them looked as if they were not over thirteen or fourteen years old, yet we were told that the papers in the office would show that they were of age.

Q. Young girls? A. Young girls. And in this place, which was about half the size of this place here (indicating), there was boiling going on of jellies and things of that kind — all kinds of jelly candy, was in layers, red, white and green, and it was the most disgusting thing a mortal could find when he went in there — the stuff was running all over the floor. The people were walking in it, and it had boiled over the tin tubs again and again.

You can get the candies in layers of jelly of green and yellow, and out in the boiling space, it was being poured — being made

into the most beautiful fresco on the outside of the boiling cans — green, yellow and red and chocolate, all boiled there.

Q. That boiler had never been cleaned, or at least for a long time? A. Yes; then it was put into pans.

Q. You say the place was about half the space we have here; do you mean to say in this space the candy was manufactured?

A. Yes. And every bit of the floor was filled up — things were piled up, so that I could not walk in and get around where these candy sticks were kept — they were piled up too high.

Q. And these people worked in that room — it had not been cleaned for some time? A. No. Over in the corner, half of this room — about where that mark is in the wall (indicating), was the floor on which these things were boiling. It was pretty hot where these boiling tubs that I spoke to you about were located. As you go in the corner from where the fire is, there was a little place in which they kept their tables, one, two, three, four tables over there. There was just this much space left for a girl to get through, so that this candy could be laid out on a full table. Then you passed around here (indicating), where there were a group of girls who took it and slid it around in chocolate.

Q. With their fingers? A. Their hands, but the whole thing was filthy, and all these little wooden trays there, and at the side here the men were doing the same thing; there was just a little table where these two men had to work; they were doing something which was pressing on candy. All through the place every inch of space is taken up by the tanks in which the candy was boiled. There were only two girls in that space; I might say one young woman twenty-four or twenty-five or maybe twenty-seven years old.

Q. What was the condition of the girls themselves as to cleanliness? A. The girls wore aprons — well, not really aprons, but a rag tied on them, on which you could see the different kinds of candies they had been handling for a week.

Q. How about the windows, open or closed? A. About an inch from the top.

Q. How is the air? A. To an outsider it was dreadful. I spoke to one of the girls, and she said it was not half bad when you got used to it.

Q. These candies are sold? A. Yes.

Q. And eaten by children? A. Yes, and by grown people too.

Q. Did these girls eat their lunch there? A. Yes.

Q. Are there any stairs in the building? A. Yes; this is supposed to be a fireproof building; there were about six large steps.

Q. Any fire-escapes? A. Yes, there were fire-escapes.

Q. How about sanitary conveniences? A. There was an open sink, filthy and dirty, and that was the only place that the girls had to wash themselves, and there was a little bit of a place for a dressing room where the girls' things were hung up.

Q. How about toilet arrangements? A. Yes, but in the same dirty condition — open right into the room.

Q. Did you examine any other manufactories in that same building? A. No.

Q. There were other manufactories in the same building? A. Yes.

Q. Could you tell me how many about were employed in that entire building? A. Five hundred we had on the report, and you can see it. It said 500 people.

Q. Now, what other buildings did you examine, I mean, what other manufacturing establishments? Where were they located? A. There are a number of human hair places on 14th Street. These are in what were once private houses.

Q. Between what avenues? A. We went from the West Side, between Eighth and Ninth Avenues there are places, and then from Fifth Avenue east — all east as far as Second Avenue. Fourteenth Street is a center for human hair establishments.

Q. Which ones did you enter and make an investigation of? A. I think five, seven and nineteen and 238½ on the west.

Q. Five, seven, and nineteen and 238½ West 14th Street? A. West 14th. Now, I should say about five, seven and nineteen, those would be old fashioned houses that had been turned into workshops — old stores. Do you want that?

Q. Yes. Go right ahead and describe it. A. Old rooms, and wooden tables, and all that, and all the necessary dirt that goes with the manufacture of hair.

Q. What was the condition of the floors there? A. All this powder and hair, and up through the stairs in the house, looking as if the place had not been swept in a week.

Q. And the stairs dirty? A. Yes.

Q. Stairs unlighted or lighted? A. Not lighted by any artificial light, and very, very dark.

Q. How about the condition of the employees? Were they clean or not? A. All untidy.

Q. How about the air? Was it full of this powder and hair and everything? A. Yes.

Q. Any fans or blowers, or anything of that sort? A. Nothing of the kind. Now, the place at 238 West 14th Street is a stable, and in fairness to the concern, it was scrubbed and clean — the boards were scrubbed, but you had the same prevailing conditions. It was a stable, and smelled as stables smell.

Q. You mean it was still occupied as a stable? A. There were no horses there that you could see, but there were the wagons that carried these things out, and the place was horrid as a place to sit all day, and yet the goods which were being manufactured there had a red cross sign on it; that is, it was sanitary or something or other — it was sanitary roll, or something with a red cross on it.

Q. What hair goods? A. Puffs or rats.

Q. They had a red cross on to indicate they were in a sanitary condition? A. Yes.

Q. But you say the dirt was just as bad as in the other places? A. No, not quite as bad.

Q. And the employees ate their meals right next to the hair they were manufacturing? A. Yes, and you went into the place as you would go into a stable. There were no stairs save a broken down stair, as you would go up into a stable where you have your hay and things and your horses, and even on the next floor there was another ladder like on the top, and the only escape was a narrow iron ladder to the roof.

Q. Now, how about East 14th Street? Did you examine some of them there, east of Fifth Avenue? A. They were rather like small salesrooms.

Q. They were like what? A. Small salesrooms; that is, two or three people working, and in front they sold what they produced. The other places were factories.

Q. What were the conditions of the rooms where they worked? A. Fairly clean.

Q. Those small places were better than the bigger ones? A. Yes, that is, they were nearer the customers.

Q. So that that produced a little more cleanliness? A. Yes.

Q. How about the place at Greenpoint? A. That had an office on Avenue D, and had a work place on Huron Street in Greenpoint, and it was — well, beyond description for filth and everything that would make for human degradation, but it was a stable again.

Q. Used as a stable? A. No, it was a stable building, this, which had been turned into a work place. The front part, where the girls were sitting weaving and dressing the hair and combing it, seemed to have boards, but in the back where the washing and dyeing was going on there were bricks which were broken in the floor in spots, so that the water went down and was standing there. They did, as soon as we got in at the door, begin sweeping in the back there, to get rid of some of the water which was there.

Q. How deep was this water? A. Well, you see, if there would be two or three stones out, it would make a hole the depth of the bricks (illustrating), in which water would stand, but they were making a desperate effort to get rid of it as soon as they found a woman there.

Q. How about the conditions of the floor where these people worked? A. Filthy, dirty, and there was nothing like a place where the women could wash themselves up after their day's work; because it is filthy and dirty work, and the thing is that these women were trying to look clean when they went out. And the Greenpoint place, of course, is taking the Polish women, women who, perhaps, haven't a standard at all of life, and using them, you see, in the market, to make this hair, because they will work for almost nothing to get work.

Q. How much do they receive? A. You couldn't get that from them. They said they made good wages when it was busy, and poor wages when it wasn't. And in a corner of that place they had a sink which was to be the place where the women dressed, and they had to change their clothes when they were going out in the street. That was an open sink, with something that looked like gold dust powder, or something of that kind, which, you know, they couldn't use to wash themselves. They had nothing like a towel. To get to the next floor of that place

— where they had wool, and hemp, and things of that kind stored, and where they made the rats or the rolls — there was a wooden stairway, and that was the only way of getting out from that place. Above that stairs in that place, they had seven or eight women working in this stuff, which is, perhaps, wool, and perhaps hair.

Q. Were these girls or women? A. Women.

Q. And there was no fire-escape? A. Nothing of the kind.

Q. Just a wooden staircase? A. Just a wooden staircase, and that place had an overflow to a house two or three doors away, and the house is sideways, it is tumbling down, really.

Q. On Huron Street? A. On Huron Street, and the alleyway and a yard were piled full of old wood and old boxes and old things that must have been there for years, I should think, to get such a pile of them.

Q. In any of these places were there any fans or blowers to keep the air in circulation? A. No.

Q. How was the air in the room? What kind of air were you compelled to breathe? A. Only the powder and the hair is all over everything.

Q. Were you there at any time when they were eating lunch? A. No.

Q. You don't know whether they ate hair besides lunch? A. I don't think they would mind it; they didn't seem to mind anything else.

Mr. ELKUS: Are there any questions the Commissioners would like to ask?

By Commissioner GOMPERS:

Q. Miss O'Reilly, in visiting these establishments, you mentioned that the windows were usually closed. What was the state of the weather as to temperature? A. About like last week — last week, if you remember, one day we had was scorching hot, and the other day it was very cold and the same condition prevailed.

Q. The reason I ask this question is to ascertain whether my observations have been correct, that by reason of the constant

employment in a sitting posture at a trade requiring little or few motions, and where the wages are low and the hours long, there is a tendency to anemia or weakness, and that the employees really, even during warm weather, can scarcely bear the slight wafts of air which come in. A. I should say all of those women that I described would be called anemic.

Mr. ELKUS: Anything further?

By Miss DREIER:

Q. How long were the hours of labor, Miss O'Reilly? A. From eight until five thirty in most places. In the Green Point place they said they went to work at half past seven and worked as long as they liked when they were busy. You know what that means.

Q. They worked piece work or by the week? A. All the women work piece work and the men by the week.

Mr. ELKUS: Anything further, Miss Dreier?

Miss DREIER: Nothing further.

Mr. ELKUS: Thank you very much, Miss O'Reilly. Mr. Schnur?

HENRY L. SCHNUR, called as a witness, and being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Mr. Schnur, what is your position? What position do you hold? A. I am assistant chief factory inspector of the State.

Q. Of the Labor Department of the State? A. Of the Labor Department of the State.

Q. How long have you been connected with the Labor Department? A. Fourteen years.

Q. Since its inception? A. No, not since its inception, no.

Q. And you have charge of all the inspections of factories in the State? A. I have.

Q. Now, will you describe to the Commission generally just what the purpose and duties of the Labor Department are, what you do, what your field is, how you cover it, generally speaking — how many commissioners, how many deputies, how many inspectors? Give me a general idea of the whole subject. A. Well, you mean the subject of the Bureau of Factory Inspection, do you not?

Q. Yes, I would like you to go into the whole subject, generally speaking. A. Well, the Department of Labor has five Departments, or Bureaus, rather,— that of Factory Inspection, Statistics, Mediation and Arbitration, Immigration and Mercantile Inspection. Those are the five Bureaus.

Q. The two that we are interested in are Factory Inspection and Mercantile Inspection. The Factory Inspection is in your charge, is it? A. Well, it is in charge of the Chief Inspector.

Q. Who is the Chief Inspector? A. John S. Whalen.

Q. And where have you offices for your Factory Inspection? A. Well, the main office is at the Capitol at Albany, and the sub-office is on Fourth avenue.

Q. In this city? A. In this city — corner of 27th street.

Q. How many inspectors are there in the entire State? A. There are fifty-three.

Q. And how many in New York city? A. Well, I think at the present time there are thirty-eight.

Commissioner PHILLIPS: That number is about to be increased, though.

Mr. ELKUS: It has been increased by the present legislature.

Commissioner PHILLIPS: It is authorized, yes.

The WITNESS: Yes.

Q. The number that you speak of, fifty-three, was the number authorized until this present legislature? A. Yes, that is the number.

Q. And this legislature authorized its increase to how many? A. To eighty-five.

Q. And they have not yet been appointed? A. No. The eighty-five will include eight Supervising Inspectors.

Q. What authority has the Labor Department over factories? What does it do in the way of inspecting factories?

A. Well, it inspects — in relation to the sanitary conditions.

Q. Yes. A. Its safety and the child labor matters, and hours.

Q. Just tell the Commission what your Department does with reference to inspecting the factories in any given city. How do you get about it, what do your inspectors do, what reports do they make, to whom do they make them, and what becomes of them? A. Well, in the city of New York there is the sub-office. The inspectors report there and get their assignments.

Q. How are these assignments made out? Where do they get the list of factories? A. Well, the assignments are made by districts, by blocks.

Q. And how do they find out there is a factory on a block, for instance? A. Well, the entire city is canvassed, block for block. They have pretty nearly a record now of all these factories, and they know just where the factories are located, but in spite of that, the blocks are gone over every year for fear some new factory may start in that block.

Q. Your inspectors, then, get a list from a chief of certain factories they are to inspect? A. Yes.

Q. Every day? A. Well, not every day. They are given a territory.

Q. Yes. A. We will say that will include from Tenth Street to 14th, and from Broadway west. Now, they are to cover that district. They are not given a list every day; they are given that territory, and they are to do that systematically by blocks.

Q. As they make these inspections, what do they look for? What are they instructed to do, and what do they do? A. Well, they are to inspect and see if there are any violations of any of the provisions of Article VI of the Factory Law.

Q. Well, what is that? A. That is, first, to see if there are any children employed, if they are of proper age. If they are under fourteen, of course, they are not to be employed at all; if between fourteen and sixteen, they are to have a certificate

on file in the office of the employer, and are not to work before eight in the morning or after five o'clock in the evening.

Q. Well now, outside of finding out about the children, what do they do with reference to the conditions — what other duties?

A. Well, they proceed through a building, inspect the elevator, the stairways to see if they are substantial and have hand-rails, and to see if the cables on the elevators are apparently in good condition, to see if the fire-escapes are proper, and if the exits thereto are free and accessible.

Q. These men, of course, are not mechanics, are they? A. Well, some have a mechanical knowledge.

Q. The only way they inspect to find out whether the elevator is safe, is by looking at it; there is no test made? A. No, there is no test made.

Q. It is simply a visual inspection? A. An inspector can tell if a cable bunches or there is something that isn't right, and he can question that.

Q. Now, suppose that he finds that a cable is thus defective, what does he do? A. He orders a new cable at once.

Q. At once, without reporting it? A. Well, he reports everything to the Albany office.

Q. And they order a new cable? A. Yes, every order is approved.

Q. Suppose an employer, or the owner, does not comply with the order, what happens to him? A. Well, first he will be given a twenty-day notice, an order of that kind, and if not complied with, a final notice is sent in after a re-investigation by the inspector that the order has not been complied with — a final notice is sent, and that is immediately, and then matters are placed in the hands of counsel — I am now talking of New York City, because that is the only place where we have a counsel. Then counsel writes a letter to the concern that proceedings will be commenced if not complied with immediately. Now, this relates to whether it be an elevator, machinery, or fire-escape — that is, the exit to a fire-escape.

Q. Now then if a suit is brought against them it is for a penalty, isn't it? A. For a penalty.

Q. And, of course, it is then tried and decided? A. Yes.

Q. And that usually, at this rate, would take several months before there is a decision? A. Well, it takes time; it depends a great deal upon how big a fight the other man wants to put up.

Q. Have you authority, if access to a fire-escape is blocked with material, to order it out of the way? A. We have authority to see that the passageway to the fire-escape is accessible, but the question is where a partition that might be extended through the room were constructed, whether we would have authority to have that removed; that is, inside partitions.

Q. You mean where the loft was partitioned off, and there was no access to the fire-escape? A. Well, it might be by a round-about way.

Q. Has that ever been questioned by the department? A. No, it has not, but we have tried to put it up to the Bureau of Buildings. They have charge of the fire-escapes on the outside, the Police Department has charge of the obstructions on the fire-escapes outside of the factory building, and we have leading to the fire-escapes.

Q. So there are three departments who have jurisdiction relative to the fire-escapes? A. Yes. The Fire Department has jurisdiction, the Bureau of Buildings has charge of the escapes on the outside, the Police Department has jurisdiction over obstructions that are placed directly on the fire-escapes.

Q. So that if they move it from one place to the other, they keep going from one department to the other? A. Yes.

Q. If they move quickly enough? A. Yes.

Q. Now, do your inspectors also inspect the sanitary condition of the buildings? A. Yes, sir.

Q. What do they do — see if it is clean? A. See if it is clean — see if there are proper toilets for the separate sexes, see if there is proper water service and sinks.

Q. Suppose they find the floor is dirty and hasn't been cleaned for weeks, what do they do? A. Issue an order, or rather make a recommendation on their reports to make it clean. The orders have to be approved by the Chief Factory Inspector of the Commissioner of Labor.

Q. You heard Miss O'Reilly's testimony about these factory conditions? A. I did.

Q. Suppose an inspector had gone with her and discovered these conditions, he would have to make a report in writing?

A. Yes.

Q. Which would go to Albany? A. Yes.

Q. After going through the New York sub-office? A. Yes.

Q. And after it got to Albany, the Chief Inspector would make an order in the name of the Commissioner? A. Yes.

Q. Directing the owner of the building to rectify the conditions? A. Yes, sir.

Q. Which would get down here, I suppose, a week or ten days after the report went up there, in the usual course? A. Well, I might explain this, that the work is sent in from the deputies to the New York office daily, and they are simply checked up there by an examining clerk to see if the reports are right, and they are immediately shipped down to Albany, so that we get them the second day.

Q. And then they would be acted upon the next day? A. Well, I suppose it would take two or three days. They would be examined there to see if there is anything in the law by which the orders can be enforced, and then they are given to the notice writers. Now, if the work is very heavy, all through the state, why, those notices may rest three or four days.

Q. So that it may be, as I stated, a week or ten days, or two weeks before this owner gets a notice? A. Yes.

Q. Then this notice gives him how many days to comply with it? A. With, unclean orders, it is immediately.

Q. And then the inspector comes around some time after that to find out whether the order has been complied with? A. Yes.

Q. And if it is, that is the end of it? A. Yes.

Q. And if it is not, he reports back to Albany? A. Well, it is not necessary. If he finds in a tenant factory, that is, a factory building where there is more than one occupant in the building, he may apply a tag as unclean to the goods manufactured, and stop immediately the work being done there.

Q. He may apply it? A. Yes.

Q. That is, he can go there and put an unclean tag on these articles? A. Yes.

Q. Has that ever been done? A. Oh, yes, it is done right along.

Q. If he doesn't do that, then he reports back to Albany? A. As a rule, under the conditions that lady described the tag would be applied.

By Commissioner PHILLIPS:

Q. What happens then after the tag is put on that they are unclean? A. Well, the goods can't be sent out.

Q. The goods have a tag on them, and they can send them out if they wish to take a chance on it? A. They can take a chance, but they couldn't remove the tag; the tag is there which shows that the goods made are made under unclean conditions. If an unclean tag is applied, and I said, I will be back here at two o'clock, they generally would have remedied the conditions by cleaning up.

By Miss DREIER:

Q. Does that apply to food stuffs only? A. No, that applies to anything manufactured under Article 100. There are forty different articles that are specified to which the tag can be applied in a tenant factory.

By Mr. ELKUS:

Q. And one of those is not human hair, is it? A. Is not human hair.

Q. And why was human hair omitted? A. Well, I couldn't tell you, excepting that it probably was not discovered that human hair was manufactured in tenement houses.

By Commissioner PHILLIPS:

Q. It wasn't used then as much as now? A. Well, of course, I couldn't give you a specific answer on that. We have got everything in there, from ice cream to paper boxes and paper bags.

By Mr. ELKUS:

Q. But human hair you haven't got the power to put a tag on? A. No.

Q. So that in a factory such as Miss O'Reilly has described, if your inspector went in and discovered the conditions, he would be powerless except to report to Albany? A. He would be powerless except where the class of goods specified is concerned.

Q. And, of course, that is a pretty serious condition? A. Yes, it is.

Q. And ought to be remedied? A. Yes.

Q. How often do your inspectors inspect a given factory? A. Well, they get over the state about once.

Q. Once a year? A. Once a year, yes. In 1910 they covered 521 factories twice or more than once.

Q. How many? A. 521.

Q. In the course of a year? A. In the course of a year, they made more than one inspection. They inspected 43,225 factories.

Q. In one year? A. In one year.

Q. How many complaints were filed as to those 43,000 factories in that year? A. Well, of that I haven't got a memorandum, although I think I could get it out of my books.

Q. Well, you can get it for me later? A. Yes, I can give you that later.

Q. How many factories are there in the State of New York? A. There are — I am taking the figures of 1910 —

Q. Yes. A. 43,225.

Q. In the entire State? A. That is in the entire State.

Q. And how many people are there employed in those factories? A. 1,129,392.

Q. That is, men, women and children? A. Men, women and children, and of course New York City has the greater number.

Q. Well, give me the figures for New York City; that is, Greater New York City? A. In Greater New York 29,458 were inspected once, and 443 were inspected more than once.

Q. So that there is at least that number of factories in New York City? A. Yes.

Q. And how many people are employed in that 29,000 factories? A. 611,738.

By Commissioner PHILLIPS:

Q. And the 1,129,000? A. That covers the city and New York State. That includes children and all else.

By Mr. ELKUS:

Q. Is there any checking up of these inspectors, or do they make their reports, and they are simply filed? Isn't there anybody that goes over their work? Is there no supervision? A. Well, there is no field supervision over them. They make a daily record of the work in the shape of a summary of the work covered by them. If I may, I will submit one of the summaries.

Mr. ELKUS: Yes. I offer this in evidence.

(The paper referred to is received in evidence and marked Commission Exhibit 1 of Oct. 10th, 1911.)

The WITNESS: And this is a weekly report which I now show you.

Q. This is a weekly report? A. Yes, that is especially for the desk of the Chief Inspector, so that he has it at hand.

Mr. ELKUS: I also offer that in evidence.

(The paper referred to is admitted in evidence and marked Commission's Exhibit 2, Oct. 10th, 1911.)

Q. These inspections are made between what hours of the day? What time does he start and what time does he finish inspecting?

A. The inspector has no specific time when he shall start. For instance, some inspectors start at seven o'clock in the morning, and there are some that start as late as nine o'clock in the morning. Those that start early, of course, expect to quit earlier in the day.

Q. What time do they usually quit? A. Well, they are supposed to put in an eight hour day, that is, in the field, and in the clerical work afterwards when they make their reports.

Q. That is, after they get through inspecting they have to come to the office and make a report, and their whole time both inclusive, is eight hours? A. They do not come to the office, Mr. Counsel, they do it in their own homes because they may be at work a long distance from the office.

Q. Can you tell the Commission how many new factories began work during 1911, from January 1st to October 1st? A. I couldn't give that.

Q. Can you tell me how many began during the year 1910?

A. No; there is no record of it.

Q. Are factories, manufacturing establishments required to inform you in any way before they begin business? A. No, there is nothing in the law requiring such information or registration of factories.

Q. Nothing at all of any kind? A. Nothing at all of any kind.

Q. A factory moves into any place it desires and starts business? A. Yes, and we have to find it.

Q. Then you have to follow them up and see if they obey the law? A. Yes.

Q. Now, what do you do, if anything, with reference to sanitary conveniences, toilets, and so forth? Are your inspectors supposed to examine them? A. Yes; we examine them to see that they flush, and see that the toilets are clean, and that one is provided for each twenty-five employees. The first twenty-five anyway, and then from there up.

Q. And a failure to comply with the regulations in that respect goes through the same course as violations in regard to filth? A. The same course, yes.

Q. Have you any remedy for the conditions that Miss O'Reilly described in her testimony? What can your Department do to those factories? A. Well, we could give them an immediate notice to clean up. If they have not cleaned within that time, we could begin an action against them before a magistrate before finally going to the Court of Special Sessions in this city here.

Q. In the meantime, of course, the conditions could go right on? A. Yes.

Q. And by the time you get through with one case, if they clean that up, it might be in just as bad a condition as it was before? A. Yes, that is it.

Q. And those prosecutions have not been very successful, have they? A. No, they have not been, no. We have had a great many prosecutions, but they have not been what we would like.

Q. Not successful? A. Not successful.

Q. Isn't it a fact in many cases where a new factory is opened, it does not come to the notice of your Department for a year or more after it has been in existence? A. Well, it might escape us

a year, but not beyond that. I will instance that; if I passed through the district to-day and inspected that district, and did not come back until next year, it might not be discovered unless I had occasion to investigate some appliances or something that brought me right into that building or neighborhood.

Q. That would apply particularly, wouldn't it, to some small business occupying half a loft? A. Yes.

Q. It would be hidden away so you might not find it there? A. I might not find it until we went through this whole building.

Q. And that is where the filth is likely to occur rather than in the big ones? A. There is no question about it.

Q. Have you any suggestion to make to the Commission with reference to that condition as to how it can be remedied? Would you recommend, for instance, a system of compulsory registration? A. I would.

Q. Requiring every factory to register with the State Department? A. Every factory to register with the State, and especially the new ones, so we might look over their equipment and other sanitary arrangements, and, if they employed women, to see that they had dressing rooms and wash rooms, to see that the fire-escapes were provided, the elevators were properly guarded, and the stairways were provided with handrails.

Q. Have you, in your Department any diagrams of factories showing exits in the case of fire, stairs and elevators? A. We have none, except in case we order fire-escapes, and in that case we file a diagram showing the location of the door, the windows and determining the elevators and stairways and so forth, where they are located, and the places where the fire-escapes should be erected.

Q. What authority has your Department to order fire-escapes on buildings in New York City for instance? A. We have no authority in New York City, whatever. However, whenever an inspector finds a condition that in his judgment requires a fire-escape, we send a notice to the Superintendent of Buildings here, and he sends his inspectors there to look over the matter.

Q. In other words, in New York City, your only authority is to call the attention of the Building Department to it? A. Yes.

Q. And if they agree with you they order a fire-escape? A. They order a fire-escape.

Q. Outside of New York City, in other cities you have authority to order them? A. We have authority outside of New York City.

At this point the Vice-Chairman directed an adjournment of the Commission until October 11th, 1911, at 10.30 A. M., at the Aldermanic Chamber, City Hall.

NEW YORK, *October 11th*, 1911.

HENRY L. SCHNUR, recalled, testified as follows:

Examined by Mr. ELKUS:

Q. Mr. Schnur, since your testimony of yesterday, you desire to make some correction or addition to it? A. Well, Mr. Counselor, yes; just one addition. That is in regard to the question you asked me about factory conditions as reported, or as testified to by Miss O'Reilly, as far as it relates to the manufacture of candy. We could immediately stop the work by applying a tag, an unclean tag; but as relates to the preparation of human hair goods, we would have to issue orders as we would in any other factory.

Q. Now, as I understand you, as far as the candy business is concerned, you could close it up at once if you knew of it? A. Yes.

Q. That leads me to the next question—your inspections would average about one a year of that factory? A. Yes, sir.

Q. In the meantime you have no way of knowing of the condition of that factory whatever unless somebody complains of it? A. That is the rule.

Q. So that if they cleaned up or happened to be clean at the time your inspector came around or had any means of knowing when he was about to come they never would have a complaint made against them? A. Not if they had cleaned up after the tagging.

Q. Under the system you have of making inspections, that is an inspector takes a district and goes around, using his own time

and inclination to examine the different buildings in that district, it would be very easy for a manufacturer to find out about when the inspector was coming to him? A. Well, he would know if the inspector was in that building.

Q. He would know if he was in the next building would he not, and then putting that together — A. (Interrupting) That is hard to say.

Q. (Continuing) With the fact that he had not been examined for nearly a year, he could pretty nearly get at the time when there was going to be an examination, and prepare for it? A. Well, the inspections are not made at a specific time in the year.

Q. I understand that, but the neighborhood is covered by this inspector and it would be pretty easy for a manufacturer who was on the lookout to find out the time when his building was going to be examined? A. He could do so.

Q. And by cleaning up, of course, the building would present, or his floor would present a somewhat decent aspect, and he would not be complained about? A. Probably not.

Q. Now, do you believe yourself that one inspection a year of a factory is sufficient to see that the law is observed? A. I do not. I believe that the factory inspection should be classified — that is, factory buildings put in classes by themselves, the good, the medium and the bad. The really good, model factory might not require more than one inspection. The inspector can very nearly tell when things are lived up to according to law, but it is the bad factory that should be followed up or brought into court to answer for an infraction of the law.

Q. How many inspections should there be? A. Well, I could not say —

Q. Don't you believe you could classify it, as you say, by a system of supervision for those factories which ought to be looked after very carefully? A. That is certain.

Q. Any experienced inspector can tell pretty much what factories will need more supervision than others? A. Yes.

Q. If you had a real system of supervision in your Department, over the work of the inspectors, it would be easy to classify those and keep more inspectors on that work than on the work of in-

specting a factory where the law is complied with and where they have all those conveniences and necessities which the law requires? A. Yes, sir.

Q. Why isn't that done in your Department to-day? A. Well, we have never had inspectors enough. With the laws that were passed by the present Legislature, they have added a force of over twenty inspectors in addition to eight supervising inspectors, and with these supervising inspectors there is no question that the conditions that you ask about can be looked over more carefully and oftener.

Q. You believe that with the addition that this last legislature has authorized, you will be able to follow out this course which has been outlined? A. I believe so.

Q. You have got some statistics for me, Mr. Schnur, about the number of factories and employees in cities of the first and second class outside of New York city; will you give them to me? A. Yes, sir. These are figures taken from the reports of 1909. Those of the year 1910, which close with September 30th, 1910, are still in the hands of the printer.

Q. Will you see that we get them when they are printed? A. I will.

Buffalo	1,911 factories	61,561 employees
Rochester	1,410 factories	48,395 employees

Cities of the second class:

Albany	426 factories	11,179 employees
Schenectady	196 factories	15,695 employees
Syracuse	556 factories	20,302 employees
Troy	440 factories	21,735 employees
Utica	124 factories	10,389 employees
Yonkers	121 factories	13,214 employees

Now, in addition to the factory employees in the State, there are over fifty thousand office employees connected with these factories.

Q. So that there are at least employed in or connected with factories in the State now, about 1,150,000, or something like that? A. Yes; that would make a total of about 1,180,000; that is in round figures.

Q. Now, Mr. Schnur, is there any system to-day by which any factory makes any report to your Department? A. Any report?

Q. Any regular report? A. There are no reports called for, excepting the certificates of the boiler inspection.

Q. That is all? A. Yes, sir; and the accident reports.

Q. Would not it be possible, and would not it be productive of a great deal of good if the factories were required to make systematic reports, once every period, stating the number of employees, and giving such information as to sanitary conveniences and other matters as the law requires? A. It would be a very good thing.

Q. And could that not be made in some simple form by the Department providing printed blanks for that purpose? A. Well, it could be done by the more intelligent employers, but when you take it on the East Side here, we will say, and the foreign —

Q. (Interrupting) Well, they are intelligent enough? A. Well, it might be framed so that they would understand it.

Q. I don't mean to say asking for a great many details that are complex, but asking for simple information, which leads me to the next point, which is, that if you had such information—could not you do away with a great many inspections altogether and devote yourself and your inspectors to examining those factories where you think the law is not enforced, and which require immediate action in order that they should be in a sanitary condition? A. It would help in this way: we will take factories that are located in sparsely settled territory where there is nothing required probably but the report of the inspection of the boiler — a saw mill or a grist mill.

Q. Isn't it a fact that to fill out that blank which you showed the Commission, an inspector is required to spend as much time in a factory that has one employee as in a factory that has three thousand employees? A. Well, he spends as much time in writing out his report, that is, his big report, and then after he returns from his work, his card report to the office; he takes just as much time to do the clerical part of that as for a large factory.

Q. And that could all be done away with by reports from the employers themselves on blanks furnished by the Department?

A. But if you accept the reports —

Q. You would not have to be bound by them, but they would be just as accurate as your inspectors, would they not, in the main? A. I would not say that.

Q. What class of men have you got as inspectors — are they competent men for the position? A. Well, that is a hard question to answer, Mr. Counselor.

Q. I don't want to ask an embarrassing question. A. I believe there are a great many inspectors who have reached that age where it is very hard for them to do practical inspection work; that is, to climb the stairs, to go out on fire-escapes, and to go down into dark basements, and to do the work that is really required of a good inspector.

Q. Then, as a matter of fact, they do it in a perfunctory way, some of them? A. Well, you have to accept that as being the condition.

Q. So that if you had the right kind of men in your Department, and had a little more power in a proper case, there is not any doubt in your mind, Mr. Schnur, with your experience in the Department, that factory conditions in New York State could be very much improved? A. They could, by setting aside these men in some way, pensioning them, or doing something for the old men in the service.

Q. What way have you got of replacing incompetent men or dishonest men — any way? A. Well, the Commissioner can ask for his resignation or dismissal.

Q. Without a trial? A. Well, he is —

Q. (Interrupting) Has he got summary power? A. Yes. He has summary power; he would have to file a reason, however, with the Civil Service Commission.

Q. But that reason would be with him? A. That would be with him. In the last two years two men handed him their resignations, because they were considered to be careless in their work. The Commissioner sent a special investigator to find out how they did their work.

Q. What co-operation is there between your Department and the local Building Departments and Fire Departments in the various cities of the State? A. It is a hearty co-operation, Counselor. We get all the information we want. They act on our complaints and they send in those that we have jurisdiction over alone.

Q. But is there any system of mutual exchange of inspections between your own Department and others? A. There is in the tenement house work; there is —

Q. (Interrupting) I mean in factory work? A. Yes; there is as far as applies to factory conditions, fire-escapes.

Q. Well, now, as a matter of fact, there are inspections by your Department, inspections by the Fire Department, in some cases inspections by the Building Department, and others by the Health Department, all, in the main, looking to effect the same purpose? A. Yes.

Q. Could not some plan be devised by which all these inspections could be placed in one department, either state or city, and effectively done by less men, in a proper way, more inspections, by trained and competent men, of a higher class than you are able to get now in any one or more departments? A. That is a great big question.

Q. I know it is a great big question; I want your opinion about it. That is one of the questions this Commission will have to solve. A. The training of a factory inspector is such that he can see these various conditions. If you go to the Health Department inspector he probably will look after the sanitation.

Q. I know, but sanitation is mixed up with your Labor Department, because your Labor Department man has to see that all the sanitary conveniences, the toilets, etc., are not only there, but that they are in good condition, and that is what the Health Department man does, does he not? A. As a rule, the Health Department does not enter factories for that purpose.

Q. They do so if there is a complaint? A. As a rule they refer it, as far as I know, to our Bureau — that is, in the city.

By Mr. SHIENTAG:

Q. Coming down to some of the present provisions of the labor law, Mr. Schnur, do you consider the present provision of the

labor law that says that all doors shall open outward as far as practicable, adequate? A. Well, it means shall open outward.

Q. Yes; do you consider that provision adequate? A. Well, it would be very hard to frame a hard-and-fast rule in regard to doors, especially on buildings that are already constructed, because a great many of the doors leading to the outside, if you make them open outward, would interfere with the passersby.

Q. Could not you direct that all doors in that position be removed and that adequate and sufficient exits be furnished? In other words, isn't the danger in the case of doors opening inwards so great as to require a mandatory provision that there shall be no doors in a manufacturing establishment opening inward? A. The law could be so framed; yes.

Q. Would you recommend that the law be so framed, basing it on your own personal experience in factory buildings?

By Commissioner DREIER:

Q. What is the objection to sliding doors? A. I see no objection to a sliding door.

By Mr. SHIENTAG:

Q. So that where it is impracticable for a door to open outward you might have sliding doors? A. Might have sliding doors; or you might, if the hall was large enough, put a vestibule inside the main door and have the vestibule door swing.

Q. So that there are no essential difficulties in the way of having the law read so as absolutely to prohibit any doors in manufacturing establishments or factories opening inward? A. No; I don't think there could be any objection or that there would be any hardship really to overcome, to have all doors swing outwardly, or make some arrangement to have them slide, if necessary.

Q. And such an arrangement could be made with very little expense, could it not? A. On some buildings it would be, of course, a material expense, especially buildings that are located right up to the street line or sidewalk line — big buildings.

Q. Well, the cost of substituting sliding doors in the place of doors opening inwardly would not be very great, would it? A. I could not give you an estimate on that.

Q. It would not be very great or material? A. No; it would not be.

Q. Have you found any practicable difficulty in enforcing the present provisions of the labor law relating to the employment of child labor? A. Any difficulties?

Q. Yes. A. Well, child labor — that is, the employment without certificates under fourteen years of age has been reduced to almost a minimum in the state in the last few years. There are not very many children employed to-day without certificates, and where a violation is found there is immediate prosecution.

Q. Let me confine myself to a specific instance. In order to prosecute successfully for a violation of the child labor law you must be in a position to show, or your inspector must be in a position to show that he found that child working in the factory? A. Yes, sir.

Q. That is so? A. Yes, sir.

Q. Now, in your experience as an inspector in the field and from the reports that your inspectors submitted to you, have you ever found any difficulty in showing that to be the case? For instance, have you ever come into a factory establishment and found children below the legal age hidden in dressing rooms or under tables or removed from their work? A. No, sir; I have found them taken from the room; I can just call to mind one instance. It was a building that was an L-shape, and the children worked in one of the side rooms and there were six of them. When I entered the main factory door I was told that these children were sent out; it was whispered to me by one of the employees as I entered the room. I demanded from the president of the company the production of these children. "Why," he says, "I have no children." I said, "I want to see them. They were working here on these punch presses, and I want to see them or I will stay here until they do come out." Within three minutes they came up. They had gone down stairs to the engineer's room, and were held there until the word was sent that the inspector was gone; but in that instance, I got the evidence and there were convictions and penalties in four cases.

Q. Have your inspectors ever reported that they found difficulty in enforcing the provision against child labor because of that

very fact,—that they would have to show that they found these children working there? A. Well, there are difficulties that way. Of course the suspected children can be taken out of the factory and the inspector never know that they were there unless somebody tips him off.

Q. Don't you think that the provision of the labor law could be made to read to the effect that the mere presence of children below the legal age in a factory shall be *prima facie* evidence of their employment in that factory? A. Yes, sir; that should be one of the provisions. Now, if you enter the court the judges will ask, "What did you find this child doing?" If you cannot describe the work that he was engaged in, the chances are that you will lose your case.

Commissioner PHILLIPS: It would place the burden on the employer to show the child was not working.

The WITNESS: Yes; they sometimes take them off the work. You see them idle. They say they are not working, they just came in.

Commissioner GOMPERS: You would change the burden of proof from the Department to the employer.

The WITNESS: Put it on his shoulders; the mere presence of a child in a factory during working hours should be *prima facie* evidence of his employment and of the hours that he is working.

By Mr. SHIENTAG:

Q. Under the present provisions of the labor law has the Commissioner of Labor the power to order wider stairways in existing buildings? A. No; he has not.

Q. Outside of the city of New York? A. There is nothing in the law regulating the width of stairways.

Q. So that, if you had a wooden stairway two feet wide, the Commissioner would be powerless? A. Would be powerless.

Commissioner PHILLIPS: Did that bill pass this last winter.

The WITNESS: No.

Commissioner PHILLIPS: That is, amending the section of the labor law in regard to stairways.

Q. Has the Commissioner of Labor the power to require the removal of wooden treads in stairways? A. He has not the power to order their removal. He can require that the same be covered with rubber and he can ask for the repair of stairways.

Commissioner GOMPERS: You say he can ask for repairs?

The WITNESS: Yes, he can order the stairs repaired.

Q. And prosecute for failure to comply with the order? A. Yes.

Q. And in your experience as an inspector of factories, have you found that rags and other materials, rubbish, are frequently stored under stairways? A. Yes; I have found that.

Q. You consider that an essentially dangerous condition, do you not, Mr. Schnur? A. It certainly is.

Q. What power has the Commissioner of Labor? A. The power of the Commissioner of Labor is that he can require that they have receptacles for the refuse to be deposited.

Q. Can he demand the abolition of the so-called store rooms under the stairways? A. No, sir; nothing in the law.

Q. Would you recommend a provision of the law that would prevent the storing of any articles under stairways in manufacturing establishments? A. Any inflammable articles.

Q. Well, you would consider rubbish inflammable, would you not? A. I certainly would.

Q. Coming down to the question of water closet facilities in factories, what has been your experience as to the adequacy of those facilities in manufacturing establishments in the city and state? A. Well, I find that as a rule they contain closets for the sexes, but not proper separating. That is, the two closets would be adjacent to each other, and in some cases it was even a hardship — it was impracticable to put screens so as to prevent the embarrassment of the females entering the toilets.

Q. What remedy have you to suggest for such a condition? A. Well, that the toilets for the sexes be placed in different parts of the building, and not adjacent to each other.

Q. Different parts of the loft? A. Of the loft, the floor.

Q. How about washrooms and washing facilities in factories, in manufacturing establishments? A. Well, they are not adequate in all factories.

Q. Is the present provision of the labor law sufficient to require these washrooms? A. Yes, sir.

Q. Has the Commissioner of Labor the power at present to make regulations in certain specific trades — dangerous trades, for instance? A. He has not.

Commissioner PHILLIPS: The Governor vetoed a bill of that kind this winter, giving the Labor Department power to make rules for the different trades.

Q. Well, from your experience in the field is it possible to have a standard that will apply to all different kinds of trades and industries throughout the State? A. Regulations as to what?

Q. Regulations as to fire prevention, regulations as to dangerous machinery, regulations as to removal of dust? A. Yes, I think if the Commissioner is given that power, that would be of material assistance in enforcing the law. He has that power now under the mine law, and rules and regulations are made for the guidance of both the employer and the operators.

Q. And you think the power which the Commissioner has under the mine law should be extended to the labor law? A. I do. I think so.

Q. Has the Commissioner, under the present law, any power to control the arrangement of machinery in factories? A. He has not, beyond ordering safeguards. He could not, for instance, require that machinery be placed to give sufficient aisle room; he has absolutely no power.

Commissioner PHILLIPS: This bill that the Governor vetoed, covered all that and gave the Commissioner the power of placing the machinery.

Mr. SHIENTAG: What bill — what was the number?

Commissioner PHILLIPS: I don't remember the number.

The WITNESS: He can order the removal of machinery if it bars the exit to the fire-escape; that is all.

Q. But he cannot order the removal of machinery if it bars the passageway to the fire-escape, can he? A. If it obstructs the passageway he can do so.

Q. Have you had any successful prosecutions of cases of that kind? A. I don't recall a case of that kind, on machinery.

Commissioner GOMPERS: Has the Department ever issued an order?

A. It has issued orders.

Commissioner GOMPERS: Providing for the placing of machinery so as to have a passageway for employees?

A. It has issued orders; but it has been, as a rule, a tedious proceeding, because it meant the entire rearrangement of factory conditions, both as to the shafting and machinery.

Commissioner GOMPERS: That applies to the operation of sewing machines?

A. Sewing machines and all power machines.

Q. It would be a very simple matter to formulate a law requiring a free passageway? A. Certainly.

Q. So that there would be no question about its enforcement?

A. This applies equally to partitions within the factory.

Q. That is a matter which was gone into yesterday. The present labor law provides that there shall be a lunch period of one hour, does it not? A. It does.

Q. Has it been your practical experience that one hour is really allowed for luncheon? A. It is not observed. The employees, as a rule, ask for half an hour, in order to shorten their working day — to shorten the working day half an hour at quitting time.

Q. Does that really shorten the working day a half hour, or is it simply a pretext to lengthen the hours of labor? A. No; generally, I think it is strictly observed — the notice posted in

the factory giving the hours within which they are to work and the time that they are to take for their meals.

Q. There is no prohibition against the eating of luncheon in the workshop, is there? A. There is not.

Q. What do you personally think about a law prohibiting the eating of luncheon in the workshops as a practical matter? A. In some factories, to establish a lunch room would probably mean to set aside almost as much room as they have for their work.

Q. You certainly think that the eating of lunch in the workshop should be prohibited in lead factories, for instance? A. Oh, yes.

Q. Does the present law adequately cover that subject? A. There is nothing in the present law to cover where a man shall eat.

Q. Even in the case of lead factories? A. Even in the case of lead factories.

Q. Or where they handle arsenic or other dangerous liquids? A. No provisions in the law.

Q. How about the provision of law that requires the provision of seats for female employees; do you find that that provision is being complied with? A. It is in a way. They provide seats of all kinds — boxes and some chairs; but how much they are used, of course, no one can tell. The law does not say how long a time a female shall have rest.

Q. Well, do you think that there should be a provision of that kind in the law, making it mandatory for female employees in factories and workshops to rest a certain period each day? A. I think it would be a very good provision of law, to give them a little rest during the day.

Q. When, in the afternoon or — A. (Interrupting) In the morning, fifteen minutes, and in the afternoon, dividing the period between the time that they come in the morning and the noon day meal, and between the noon day meal and stopping time. Of course, there are many employees that are required to remain standing in order to perform their work; it would be absolutely useless if they could not stand to do that work.

Q. So that, in occupations of that kind, the provision of law requiring seats for female employees, is practically a "dead letter?" A. It is.

Q. Do you know whether the labor laws of foreign countries provide for resting periods for female employees? A. I am not informed as to that phase of the foreign laws. In speaking on the question of seats, there is a provision in section 93 which requires that no child shall be employed or permitted to work in any capacity where such employment compels her to remain standing.

Q. Have you found any difficulty in enforcing that provision? A. There would appear to be, for the reason that if they sit down a little while they seem to be complying with the terms of the law, so long as they are not standing.

Q. Do you think you can enumerate the occupations that compel a child to stand practically all day long? A. I can recall one only at this moment; that would be in a small mill, in the manufacture of silk.

Q. Where the child is compelled to stand practically all day long? A. Yes; in order to do the work.

Q. So that in an industry of that kind, section 93 of the present labor law is practically of no value? A. Practically. The chair may be there, and the child may sit down for a few minutes, but it is practically standing the better part of the day.

Q. Could you prepare and send to the Commissioners later on a list of the industries in which the child is required to stand practically all day long? A. I could do that.

By Mr. ELKUS:

Q. Mr. Schnur, coming backing to where I stopped interrogating you — would it not be possible in making inspections of factories, instead of having your inspectors devote so much time to filling out reports, to have them divided into two parts and have the clerical work done by some one other than those who did the actual examination? In other words, it does not require a man of very much ability to fill out the specific answers, but it does require a man of some ability to make an investigation as to conditions? A. That is true.

Q. Could not that be divided in such a way as would result in an increased efficiency in your department, in so far as it serves as a command upon factory owners to comply with the law? A. If I understand the question rightly, the inspector who inves-

tigates conditions of a factory would have his report written up by some one else.

Q. Or this information be obtained by somebody else — by a clerk? A. I don't think that that is at all feasible. I think the man who makes the inspection is the one who can write his report more clearly, because as he is writing his report a great many ideas occur to him.

Q. Could not a man whose duty it was just to examine factories examine almost twenty-five or thirty factories in a day by running through a factory, and pointing out, for instance, a dirty floor, improper sanitary conveniences, bad air, and obstructed roads to the fire-escapes, by simply calling attention to these conditions and then letting somebody else go around and get all this information required by the Department and which really takes up most of the time of the inspectors? A. Yes, sir.

Q. Why doesn't the Department do something of that kind — is there any rule to stop it? A. No.

Q. It is simply a regulation on the part of the Commissioner? A. Simply a regulation on the part of the Commissioner. At one time we had a blank in which the inspector merely gave the name of a certain number of employees, and then stated, yes or no, if there was a violation of any of the provisions of the law, and then enumerated his orders. That was a short report, but the form was changed after; after that we used the present form of the Tenement House Commissioner here, which is very minute and very specific.

Q. Mr. Schnur, the greater number of factories are in New York city, are they not? A. Yes.

Q. You have in your Department how many deputy commissioners? A. The First and Second Deputy.

Q. They are all in Albany, are they not? A. No, principally on the road.

Q. Is there a Deputy Commissioner here in New York, in charge of the inspections here? A. There is a Factory Inspector, Assistant Factory Inspector in the sub-office at New York; and the Chief Inspector makes it a practice to be in New York two days a week. Although he is here at times — at times he passes the entire week here.

Q. Does your Department ever explain to factory owners or manufacturers the advisability of having fire drills and complying with the factory laws — how it should be done, and give them information as to fire drills, and as to air space; does it issue any documents or give any information of that kind — any lectures on the subject? A. It gives no lectures, but it posts an abstract of the Labor Law, giving all this information.

Q. Well, the Labor Law simply says that such and such a thing must be done? A. Yes.

Q. Is there any attempt made by your Department to explain more fully how the law can be complied with, and in what way — the advisability, for instance, of allowing sufficient space to get to fire-escapes — to keep open this space? A. These matters are all explained by the inspector when he finds an exit closed.

Q. Yes; but it is left to the individual — to the inspector? A. Yes.

Q. Does your Department do anything about it? A. No.

Q. You realize that when you leave it for an inspector it depends entirely upon the ability or competency of that inspector? A. It does.

Q. Don't you think that your Department could, by illustration, show a model factory in regard to that, and benefit not only the working people, but the employer himself? A. It would be very helpful.

Q. You find that a great many manufacturers themselves are ignorant as to how to comply with the laws? A. Yes, sir.

Q. And that is one of the main reasons why they do not comply with them? A. Yes; and some don't care much about knowing what the law is.

Q. That is probably true, but then you have the right to enforce it. Now, does your Department pay any attention to fire-escapes on factory buildings? A. On all outside of Greater New York city.

Q. Outside of Greater New York? A. Outside of Greater New York.

Q. Take the other cities of the first and second class — what do you do with reference to the fire-escapes on factory buildings? A. On all buildings over three stories in height we require a fire-escape unless other suitable means are provided.

Q. That is left entirely to the discretion of the — A. (Interrupting) The Commissioner — the inspector in the field.

Q. And the fire-escapes that you require are the ordinary metal structures on the outside of a building with a ladder and platform?

A. Balconies connected with the windows, to be no less than six feet long, three feet wide, and railings three feet in height, and inclined stairs reaching from balcony to balcony not less than eighteen inches in width, with suitable handrails on the side, and a drop ladder properly counterweighted, to reach from the balcony on the second floor to the ground; also a ladder from the balcony to the roof of the entire structure. That is practically the requirement of the fire-escape construction by the Department.

Q. Mr. Schnur, is there anything in the Labor Law which gives the Department the power for ordering these fire-escapes?

A. Yes, sir.

Q. What is the authority for it? A. Sections 82 and 83.

Q. Does that describe the kind of fire-escapes that you are to order? A. Yes, sir; of course the Commissioner has discretionary power.

Q. What do you consider a satisfactory means of egress in case of fire — stairs or elevators? A. Elevators, never.

Q. Stairs? A. Stairs, properly enclosed in fire-proof shafts, with fire-proof doors, self closing.

Q. Closing in or out, or don't you pay any attention to that? A. Opening outward.

Q. Is that required? A. That is required.

Q. How about locked doors? A. Wherever we find any cases of locked doors prosecutions have resulted.

Q. That is prosecutions in the method you have told us about. Now, take a case, Mr. Schnur, in the City of New York; you have no authority there by statute, that is taken away from you, and given to what department? A. In regard to fire-escapes?

Q. In regard to fire-escapes. A. Bureau of Buildings.

Q. You have the right, however, to insist that there shall be free access to each fire-escape exit? A. We have that right.

Q. That is, you have the right to do that in the city of New York? A. Yes, sir.

Q. If your inspectors find absence of fire-escapes or defective ones, do you report it? A. We report it directly to the Bureau of Buildings, who then send their inspector to verify the report.

Q. Do you do anything in reference to partitions in so-called loft factory buildings? A. Our Department has no authority to require them to remove partitions inside of factory rooms. We find that a factory owner, or a loft owner, rather, will hire a room and then partition it off to suit himself. It appears, then, that the Bureau of Buildings in Greater New York has no jurisdiction, and there is no law that will permit the Bureau of Factory Inspection to rectify matters unless these partitions were right close up to the fire-escape, when it might require them to make an exit directly to the fire-escape.

Q. Have you any suggestion to make to the Commissioners with reference to this matter of wooden partitions in your Department? A. I think the Commissioner of Labor should have full authority to have them removed where they have impeded in any way the passage of employees from an inside working room to the fire-escapes.

Q. We come back, then, again to a division of the responsibility. Would it be possible to centralize all the authority with reference to these factory buildings to inspections now undertaken by the Fire Department or Building Department of this city, in the Department of Labor? A. It would. It was so previous to the enactment of the Greater New York Charter. At that time, the Factory Bureau had full authority to look after the erection of fire-escapes in New York city and in the boroughs that now form Greater New York.

Q. Have you control over the arrangement of machinery in factories? A. We have no authority whatever.

Q. Or the placing of mechanics or employees in closed rooms — have you any authority over that? A. No.

Q. What is your opinion about the present labor law; is it defective in some respects — should it be amended or not? A. I believe that a great many changes could be made.

Q. Tell the Commissioners what you would suggest. A. The very point we are speaking on, would be to have the control of the interior arrangement of the work room, when the partitions in

any way obstructed the passageways, and the proper lighting of elevator shafts used by employees.

Q. What do you mean by proper lighting of elevator shafts — electric light, artificial light or what? A. Either by artificial light, at least some light during the working hours of the factory. When the shorter days come natural light would not be sufficient; they would have to supply artificial light for the prevention of accidents.

I find also that Section 5 relating to the hours of labor in brick yards should be under Article 6. While we enforce the law in brick yards, it appears to me to be out of place.

Commissioner GOMPERS: In which way do you mean out of place?

The WITNESS: It is placed here under Article 2.

Commissioner GOMPERS: It is merely a transposition of the sections that you want?

The WITNESS: A transposition. Under the provision of that law no employee is to work more than ten hours, or commence work earlier than seven o'clock in the morning. Those who have experience with brick yard work,—and there are a great many throughout the state, along the Hudson and throughout the western part of the state—all know that they start their work as early as four and five o'clock in the morning. The law in that respect is meaningless, because starting work prior to seven o'clock could be explained as based upon extra compensation.

Q. Are there any other sections of the law that you think should be amended? A. I will refer to Section 17, seats for female employees; that is also placed here under Article 2.

Q. You mean it should be placed in a different section? A. Under the factory provisions.

Q. What authority has your Department over the handling of dangerous chemicals by employees? For instance, the handling of arsenic, without gloves—have you any authority? A. Absolutely no. The only provision in the law is that which covers children under sixteen years of age. They are to have nothing to do with that class of work.

Q. There is no law which you know of that regulates the handling of dangerous chemicals or materials in any department of the city or State? A. I cannot recall; I do not know of any.

Q. Do you think there should be? A. I think there should be. I think that that matter should be taken care of as well as the clothing of employees where saws and other dangerous machinery are in operation.

Q. What does your Department do with reference to the use of so-called safety appliances — appliances in case of fire, or for the prevention of fire? A. Nothing at all.

Q. Nothing at all? A. No.

Q. Have you any recommendation to suggest to the Commissioners in reference to that? A. I have not, for the reason that the entire law is practically intended for the employees and not for the saving of property.

Q. Nor life? A. Well, it is for the saving of life, of course; but not for the saving of property, and everything is done to try to get them out, in case of danger, out of the building as quickly as possible, without providing means for extinguishing the fire.

Q. Your Department has some authority as to safety devices to prevent accident? A. Oh, yes; has full authority.

Q. That is, authority with reference to machines and safeguards? A. Yes, guards.

Q. Upon machines? A. Guards on machines, shafting, etc.

Q. Mr. Schnur, is there anything else that you would like to tell the Commissioners about with reference to your Department or its work? A. I cannot think of anything now.

Mr. ELKUS: If there is anything that you should think of later that you would like to tell the Commissioners about, we would be glad to have you come in. Do the Commissioners desire to ask the witness any questions?

Commissioner DREIER: Mr. Elkus spoke of the employers' reports regarding factories. Have you any suggestions to make as to reports employees might be able to make — any method?

A. Well, I don't think you could get them, unless they were organized, or unless they had, as they have in the printing trades

— chapters, where there are chairmen and secretaries. You can get a report from them, but in shops where nobody assumes any responsibility it would be very hard to get reports, excepting individual reports.

By Commissioner DREIER:

Q. It would be possible to have a responsible person in the factory? A. It would. If there was some one in the factory that would report conditions there it would assist materially in rectifying matters — a sub-committee we will say, and a secretary that would report to the Commissioner.

By Commissioner GOMPERS:

Q. In regard to the guards and devices for the protection of employees engaged in the handling of dangerous machinery, hazardous machinery, has the Department issued any general directions in regard to these guards or safety devices? A. Well, we recommend what we think are the best guards for the various parts of machinery that are dangerous, such as saws, planers, shapers and various other classes of machinery, the covering of set screws and covering of gears.

Q. To what extent have these guards and safety devices been applied in the factories as recommended by the Department? A. They have to a large extent. Some factories are entirely equipped with safeguards, and I think there are very few factories to-day where the guards have not been ordered, and in most cases provided. There are, however, thousands of factories where the guards have been provided, say, planer guards, where the employees have deliberately removed them from the machinery, after a great deal of expense has been entailed on the manufacturer to provide these guards. That is a matter of record.

Q. Have you seen the devices and guards which Dr. Tollman has placed before a number of bodies of workmen and employers in regard to devices and guards on machinery? A. I have seen them.

Q. In Germany, in Berlin and in Munich, they have museums in which these guards and devices are exhibited, and

investigators, workmen and employers are invited; it is free to them. Have you ever seen them or read of them? A. I have read of them, and I have had — in fact, I have all the books on safeguards, which I have studied and know what the appliances are.

Q. What do you think of the idea of having such museums established in, say, New York or one or two of the other large cities and industrial centers of the State of New York? A. It would be a fine idea to have them, because manufacturers will go a distance; I know a great many travel now to New York to see them, and if they knew that the Commissioner of Labor had set a standard on a guard,— if this was the best guard or that, they would adopt it, but they would like to see them in operation. It wouldn't be enough to have the guards simply hung on the wall, but they should be attached to the machinery so they can see just how they work.

Q. I didn't see the one in Berlin, but I did the museum in Munich a few years ago. The building occupies a space, I should say, about the size of our Library here in New York city —

Mr. ELKUS: New York Public Library?

By Commissioner GOMPERS:

Q. The New York Public Library; and the machines and the devices to which they were attached were all in full operation, and they were exceedingly interesting and illuminating. There were some of these machines when the devices and guards were in place, that it was physically an impossibility for an accident to occur. A. That is right.

Q. And I asked the question I did with the view, if possible, of a recommendation, and the application of it by the Department of Labor in the State of New York. A. I think we could go one step further in regard to guards, and that is, a manufacturer within the limits of the State of New York should apply all the best guards to the machinery that he sends out to be used in the shops and the factories, and not send them out in a crude form, and to oblige the Factory Department or any one else to make suggestions that a saw be guarded, or a planer, or whatever

machine there is. That should be done if it is manufactured in the state; let the manufacturer do it or condemn that machine right then and there, and let it be known that machines from outside the state that come in here unguarded shall be treated likewise.

The VICE-CHAIRMAN: That is the rule in foreign countries now.

The WITNESS: It is in some countries.

Mr. ELKUS: They have to comply with the regulations of the different countries.

The VICE-CHAIRMAN: When they are selling them to use in the United States they don't equip them.

The WITNESS: No.

Commissioner GOMPERS: You said that there was some correspondence between your Department and the other Departments, such as the Building Departments and the Health Departments and the Fire Departments. At any time has there been any conferences held between the representatives of these Departments for the discussion of the matters affecting the various Departments and the safety of employees?

The WITNESS: Of course that is a matter a little outside of my domain. I know that the Commissioner himself was down here in New York city after this fire, and that he talked this matter over with the Fire Commissioner, and with the others, and the state was circularized — that is, the Fire Chiefs asking their co-operation in their own places and making recommendations; if they knew of any unsafe plants to let us know, and we would co-operate; and in that case we got responses from most of the cities of the state. Where they found defects an inspector was sent, in connection with an inspector from or with one of the other Chiefs to look over the ground, and, between the two, authorized the best means possible for the protection of life

By Commissioner GOMPERS:

Q. With the existence of divided authority and divided power, what is your idea, or rather, would you favor an annual or semi-annual conference in the city of New York, or at Albany, or one of the other large industrial centers, by the representatives of these Departments for co-operative purposes, in order to enforce law and devise new rules and regulations, or to ask for additional legislation in order that life and limb, and health and property may be safeguarded? A. It may be an excellent idea.

Q. The question of the enforcement of the child labor law has been discussed by you and counsel. Will you tell the Commission how many complaints have been made within this past two years to the courts against employers for the violation of the child labor law? A. Well, I haven't got statistics at hand to show just the number we received at Albany or here, but they are not many. They probably wouldn't — probably 100 or 125 would cover specific complaints of child labor; I think that would be a pretty fair estimate.

Q. How many convictions have been had for the violation of the child labor law? A. Well, I can give you some figures I have in mind.

Q. Will you furnish the Commission with just a brief statement as to that? A. Yes, I can do that a little better; I know what we had two years ago. In the factory part we had 511 prosecutions, and in the mercantile some 300 cases.

By Mr. ELKUS:

Q. Child labor cases? A. Not all child labor, no.

Q. Those were all of the prosecutions? A. Those were all of the prosecutions.

By Commissioner GOMPERS:

Q. Does the law under which the Department of Labor operates extend to offices, such as law offices, banking offices, and commercial offices? A. The mercantile law covers offices, but I couldn't tell you whether they go as far as law offices or dentists, or the professions.

Mr. ELKUS: He probably means they don't labor in law offices.

The WITNESS: They do take up such classes of work as telegraph offices, and where there are employed more or less children — and telephone exchanges.

By Commissioner GOMPERS:

Q. I have in mind, necessarily, not only the physical safety from dangerous occupations in matters of this character, but also the sanitary conditions, light and air? A. Well, there is nothing in the law regarding light. The mercantile law covers only children under sixteen and women.

Q. Of course, light and air are rather essential? A. Oh, yes; it places a lunch room, however,— a lunch room shall be connected with every mercantile establishment, and a certain amount of ventilation.

Q. You informed the Commission that the Department has the power to apply tags to certain products which are made under unsanitary conditions, under the general term "Unclean Tags?" A. Yes.

Q. Now, will you tell the Commission how—in how many instances approximately, have the unclean tags been applied to goods made under unsanitary conditions? A. I haven't got those statistics at hand, Mr. Gompers, but I can give them to you later.

Q. Will you do so? A. I will do so.

Q. How many employees, including the Commissioner and Deputy Commissioner, does the Department of Labor consist of? A. You mean the entire Department?

Q. The entire Department, yes. A. Well, I couldn't tell you that unless I counted up. I know just what is in the Bureau in which I act, but not the others. You see there are five Bureaus, and I don't know just exactly how many there are in each Bureau. I had a report here which gives the personnel of the Department.

Q. Does it give a summary of the number of employees? A. Yes. (Referring to a report.) They are all here, but I will have to count them.

Mr. ELKUS: I may say to Mr. Gompers, that Commissioner Williams of the Labor Department is going to appear here, and perhaps some of these questions may be asked and answered by him.

The WITNESS: Yes; that he has in mind; he knows just what there is.

Mr. ELKUS: Some of these matters I understand from my talks with the Department,—the Commissioner—in some cases Mr. Whalen knows better than Mr. Schnur.

The WITNESS: Yes, I simply know matters that are within our Bureau.

By Commissioner GOMPERS:

Q. Will you state the five divisions of the Department? A. There is the Bureau of Factory Inspection, the Bureau of Mediation and Arbitration; the Bureau of Mercantile Inspection; the Bureau of Statistics; the Bureau of Industries and Immigration.

By Commissioner DREIER:

Q. In connection with these "Unclean Tags," the material can be sold with the "Unclean Tag" on it? A. Oh, yes; there is nothing in the law which prohibits them from selling, but the law says they shall not remove the tags.

Q. The merchant can buy them with the "Unclean Tags," and then he can take them out of the bag or box, whatever they are in, and sell them? A. Yes.

Q. About the labor laws, the labor laws are supposed to be posted? A. Section 68 of the law requires that an abstract of the law be posted on each floor of the factory.

Q. But it is not posted in any other language than English? A. In English.

Q. Wouldn't it be wise to have it posted in others? A. There might be some where there is a certain foreign class, like Italian and Polish and those down in this city that form a big foreign element. As to the tag, there is also another tag applied, which

is in case of contagious diseases, if they are found in a factory. In that case the Board of Health is notified, and they are to take charge.

By Mr. ELKUS:

Q. Does your Department issue bulletins of any kind, calling the attention of manufacturers to new methods of guarding machinery, or new methods in fire-escapes, new methods of sanitary conveniences that come to your attention? Do you do anything like that? A. No, there are no bulletins issued of that character.

Q. Do you make a study — anybody in your Department make a study of any such new methods that come upon the market, for the purpose of informing manufacturers or of being informed themselves? A. I know that I make a study of every document bearing on the safeguarding of machinery that comes in.

Q. But the only way that information would get to manufacturers would be through inspectors? A. Would be through inspectors.

Q. They don't know anything about it at all? A. We have provided the inspectors with books on safeguards, showing how the safeguards are to be employed, and the kinds of guards that are in use.

Q. Do you inform them from time to time as new ones are invented or put upon the market? A. We have a list of the good ones, or one that was published by an insurance company, and we send each inspector this book.

Q. Are some of these inspectors used as clerks to do ordinary clerical work here or in Albany? A. There are two in New York city that I know of positively.

Q. What salary do they receive? A. They receive \$1,200.

Q. A year? A. \$1,200 a year, and there is one in the Albany office who examines the schedules before they are passed over to the notice writers.

Q. So that there are three doing clerical work? A. Three doing clerical work.

Q. Now, can you tell the Commission what inspector last inspected the Mangin Street factory that Miss O'Reilly testified about yesterday? A. We can find out.

Q. Will you find out and send him down here on Friday morning, at half-past ten, with all his reports about that factory?
A. Yes.

By the VICE-CHAIRMAN:

Q. Mr. Schnur, do your inspectors in their reports report on a bad condition that doesn't violate the labor law? A. Yes, they report on a great many conditions that are governed in localities by municipal codes.

Q. That don't violate any law at all, but they are in bad condition? A. They are bad, and where they can be rectified by the municipality, why, the inspector will issue that order, or recommendation, rather, on his report.

Q. Of course, that is real work, when an inspector discovers a bad condition that doesn't violate the law, he is doing some real work then, more than routine work? A. Yes, he reports not only everything that comes under the provisions of the factory act, or the labor law, but whatever it may be.

Q. Aside from that, take a bad condition that does not violate a labor law or city ordinance, or anything else, does he pay any attention to that? A. No.

Q. Don't you think that is the thing he ought to do? A. There is no law.

Q. That is the way in which we find out the laws we need?
A. I couldn't think of anything of this moment that wouldn't be covered either by the factory law or by the local ordinances.

Q. Well, you can recall a lot of things, of course, that are not covered by the labor law; otherwise you must say the labor law is perfect, which it is not. It seems to me if the inspectors report bad conditions, it is a matter of education, then, to lead the way for improvements in the law.

Q. Do you remember some time ago there was difficulty in the Department enforcing the law in regard to fans to carry away dust in the metal polish trade? A. Yes.

Q. Amended a year ago? A. Yes.

Q. What is your experience under the new law? A. The new law is a good thing. We can now enforce that provision of the law.

Q. You are enforcing it? A. Yes, and getting results.

Q. What is the condition in Buffalo where you had the trouble before? A. At the present moment they are installing the exhaust system with proper connections. That was the report received only last week, and that, if you remember, was a case that was tried —

Q. Two or three times? A. It was tried first in the Police Court, and a suspended sentence was imposed. An appeal was taken to the County Court, and the County Court threw it out, because, under the provisions of the law, you couldn't appeal from a suspended sentence. Then we got up another case, and took it before the Erie County Grand Jury, and the defendant was permitted to appear and they found no bill, and the next case we brought an action under Section 85, for proper ventilation, and tried it in the Civil Court, and the Department was left again. Then the law was changed, and under the present provisions of the law we are getting results, and they admit — their lawyers admit that the State has got them, because the question in those actions was that the law says that all dust-creating machinery shall be provided with exhaust fans of sufficient power. Now they brought up witnesses from the employers who swore that the dust that came off from the grinding and polishing wheels, composed principally of lint, copper and brass — that it was not dust, and they brought in the city chemist — no, not the city chemist, but a chemist connected with the Agricultural Department. We had the city chemist on our side, and yet the jury decided against us. So the law was then changed, and took the question of dust right out, and made it a machine upon which grinding or polishing was done.

Q. Well, now, are all dust-creating machines coming within that statute, and is the statute being enforced as against all dust-creating trades? Do you recall any trade that is not putting in this exhaust system? A. Well, there are some that probably you couldn't handle directly by an exhaust system, like the cleaning of castings.

By Commissioner GOMPERS:

Q. How about the manufacturers of tobacco, cigarettes and snuff? A. In regard to providing fans?

Q. Yes. A. Well, in that particular work I have no experience, but the great cry of the manufacturer is, where he makes an article like snuff or anything else of that kind, that his product is carried out through the exhaust fans, or through the blower system, and he loses part of it.

Q. That part of it which is inhaled by the employees, he loses that too? A. Yes.

By Mr. ELKUS:

Q. How about the hat manufacturing business? A. I haven't got any experience in that, Mr. Elkus. I have just one thing, Mr. Elkus, you were asking about the law, and that was this: I think, inasmuch as a Fire Marshal now has charge of boiler matters, that I don't see much use for having that under the Factory Act. It seems the State Fire Marshal requires the inspection of boilers, and all that the factory law requires is that a certificate of its inspection be filed with the Department, and all that we really do is to see that we get certificates of inspection.

Q. Do you know anything about emery wheels, and as to whether or not they are covered or required to be covered by your present law? A. Well, emery wheels used for grinding purposes, the law requires that there be exhaust fans.

By the VICE-CHAIRMAN:

Q. You mean to have them covered to keep pieces from flying? A. Yes.

By Mr. ELKUS:

Q. Is that law complied with? A. Well, not generally. It is where the wheel can be used — some wheels are used on the side, and some have flanges to protect them, without hooding them.

Q. Will you have sent here on Friday morning at half past ten the inspector who made the report as to the Triangle Waist Company building, before the fire, together with his report? A. Yes, sir.

Q. And the other inspector about whom I asked you? A. Yes, sir.

By the VICE-CHAIRMAN:

Q. Now, in regard to inspecting factories, I suppose it is physically impossible for your inspectors to inspect all the machine tools in the State, to see whether they are properly guarded. For instance, take the General Electric Company, with 9,000 machine tools, how long would it take a man to go through there once a year and inspect every tool, and see whether the stamping machines are properly guarded, and if the guards are old and defective? A. It would take a man a month to examine every machine minutely in a plant of that kind.

Q. Now, that company and others are gradually organizing their own inspection forces, safety committees? A. Yes.

Q. Then you have the insurance companies? A. Yes.

Q. What co-operation, if any, exists between the Labor Department and those other inspection forces? A. There is really no co-operation between that and the insurance companies.

Q. Is there any between the Labor Department and these inspection or safety committees of different concerns? A. No.

Q. Of course, when your supervising inspectors are appointed, if they are big enough men, and I hope they will be, they will probably be able to start some such system of co-operation in every community with all these various safety forces? A. Yes; no question about that.

Q. Well, now, on that question I asked you a minute ago about making reports of bad conditions, even though there is no law or ordinance violated, you expect that supervising inspectors in those districts will take up that very thing? A. Yes.

Q. Any man can go through the routine thing and can see whether a screw is countersunk and whether a shafting is protected? A. Yes, a man can pass along a factory room, and his eye is so trained that he can tell whether a machine is guarded.

Q. Isn't the real work in finding a bad condition that doesn't violate the law, and trying to rectify it in some way, by calling the employer's attention to it, and getting his co-operation on conditions not covered by the factory law, but that are dangerous and bad, and trying to get the people responsible for them to co-operate and remove them or else amend the law? A. I can't

think of any conditions at this moment that are not covered by the factory or some other law.

Q. Then you think the law at present is perfect? A. No.

Q. But you don't recall? A. I don't recall at the present moment anything.

By Mr. ELKUS:

Q. Isn't the great fault with the present system the divided responsibility between three or four or more departments, covering all these subjects, and the associated duplicate inspection of factories and factory buildings? A. Well, I wouldn't like to say yes to that statement.

Q. You won't say no to it? A. There are a lot of things that, of course, as I said before, the trained inspector sees while he is passing through a department — he can pass on machinery as well as he can pass on the sanitary conditions.

Q. Well, whether it is one inspector or more, each department has its inspector. Isn't one of the great troubles — put it that way — the fact that the responsibility is divided between different Departments, local and state? A. Oh, yes; when you take the city of New York especially.

Q. Now, outside you were speaking to one of the Commissioners about local ordinances covering all of those things that the statute didn't cover. Is there any compilation or book showing what ordinances prevail in any of the cities of the State outside of the city of New York? A. No, there is not.

Q. How can anybody find out what ordinances there are with reference to the occupation of buildings for factory purposes in those cities? A. There are very few cities that I think have a complete set of ordinances.

Q. So that anybody who wants to find out has got to go to work and dig it out for himself? A. Yes, sir.

Q. Has your Department ever attempted, for the information and guidance of your inspectors, or the Department itself, to compile these ordinances? A. No, it has not,

Q. That ought to be done, ought it not? A. The law says that the Factory Inspector may require such changes to be made as shall be called for by local ordinances.

Q. He is authorized practically to enforce the local ordinance, if he knows it? A. Yes.

Q. As you say, whatever the factory law does not provide for, the local ordinance does, if you can find out what it is, these ordinances have the effect of statutes, many of them? That is, the Legislature has authorized the local Boards of Aldermen and Council to pass ordinances, which in law have the same effect as the law passed by the legislature? A. Yes.

Q. Have you any suggestions to make to this Commission, with reference to getting up a compilation of this sort, whether it is necessary or proper, to find out whether they conflict — whether what can be done in one city cannot be done in another? A. Well, that would be a great big task, and I think it would take some lawyer to get up that compilation.

Q. Oh, if undoubtedly would, but you have plenty of them in your Department? A. We have just one. We have one in the New York office here, and one of the special inspectors is deputized as Assistant Counsel. The gentleman happened to be a lawyer.

Q. You haven't any compilation at all in your office at Albany, or here, which would help this Commission to find out what these various local ordinances are? A. No.

Q. No city outside of New York, as far as you know, has them printed? A. Well, they have —

The VICE-CHAIRMAN: Rochester.

The WITNESS: Probably Rochester. The ordinances of Buffalo, I know for years they have been trying to get them amended and get them into form for the printer, and I don't know whether they ever got them, and they had, of course, building codes and sanitary codes and things of that kind.

By Mr. ELKUS:

Q. And they all relate to this same subject matter, in the same way, but not so directly? A. Yes.

Mr. ELKUS: I may say for the information of the Commission, after my appointment as counsel, I went to work to have a com-

pilation made of these different ordinances of the cities of the first and second class, and with the help of the State Librarian, who volunteered to help, I expect to be able before the Commission closes, to present in printed form a compilation of these various ordinances, and then I will present it to the Labor Department. (Addressing the witness). Thank you very much. Will you send down those two inspectors with all those reports on those buildings? A. I will surely.

DOCTOR HENRY MOSKOWITZ, called as a witness and being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Doctor, what is your occupation or profession? A. I am an associate leader of the Society of Ethical Culture, director of the Downtown Ethical Society.

Q. Have you had anything to do with the factories in the city of New York in the last few years, and if so, during what time, and what has been your connection or association with them? A. During the last year I have been secretary of the Joint Board of Sanitary Control of the cloak and suit industry, and recently a member of the executive committee of the Committee on Safety, and as secretary I have come in touch — close touch with factory conditions.

Q. The Joint Board of Control of the cloak makers is a Board created by both manufacturers and employees for the safety and protection of the employees, and to preserve the interests of both? A. Yes, sir; it was created by the protocol of peace, signed last September, which provides for representatives of the public, representatives of organized workmen, representatives of the employers. The function of this Board is to investigate the sanitary conditions of the factories and to formulate standards, based upon those conditions, and then to enforce them upon the entire industry.

Q. How many factories has your Board inspected? A. There have been two inspections. The first inspection of the Board discovered 1,243 factories, and the second inspection of it discovered 1,738.

Q. That's only in your own particular line, the cloak manufacturers? A. Yes.

Q. Why was there this difference between the number of inspections? A. The difference is due to the fact that neither the unions or the Employers' Association had a list of the factories, and we couldn't get that list from the Factory Department; they couldn't furnish it, and it convinced us that there was need of a registration of factories. The State Factory Department ought to have a list of every manufacturing establishment, and also, these establishments should not only be registered, but licensed.

Q. That is, before they are permitted to begin manufacturing, they should apply to some department of the State and receive a license after inspection? A. And receive a license after inspection, after they have conformed to legal requirements.

Q. An inspection to see whether or not they conform when they start out? A. Yes, sir.

Q. Not only as to machinery, but as to what else? A. Well, as to sanitary conditions, light and ventilation, and that minimum of safety and sanitation required in the labor law.

Q. And also what about fire protection? A. Well, the Board made an inspection of fire protection, and came to some very interesting facts which I should like to submit here.

Q. You may submit them. A. The Committee discovered there were fourteen shops in buildings with no fire-escapes in the first inspections, and 63 in the second. There were 101 shops with no, or defectively placed ladders, and 236 in the second inspection. There were 78 shops with obstructed openings to fire-escapes in the first inspection, and 153 in the second. There were 195 shops in buildings with more than one fire-escape; that is, of the 1,738. Three hundred and forty-six were found in the second inspection, which had more than one fire-escape. Twenty-three shops had locked doors during the day in the first inspection and 25 in the second. There were 1,173 shops with doors opening in, in the first inspection, and 379 in the second. Seven hundred and twenty shops had no other exits than doors in the first inspection, and 491 in the second inspection. There were 65 fire-escapes having straight ladders. Three hundred and seventy-five shops were found without fire buckets. Only 135 shops had chemical extinguishers, and only 128 automatic sprinklers.

There were 60 shops with halls less than three feet wide discovered in the first inspection and 58 shops with dark halls and stairways. One hundred and twenty-four shops in the second inspection, 51 shops with defective treads and rails in the first inspection, and the same number in the second. We found only one shop in the first inspection which had fire drills, and 14 in the second.

Q. What is the reason for the difference between the two inspections? A. Well, we discovered more shops; as I stated, in the second inspection we were able to get a list of more shops.

Q. Now, Doctor, how long did it take your inspectors to make those inspections? A. Well, it took us about — in the first inspection it took about five weeks, and the second inspection took less time.

Q. How many men were employed? A. Well, we had five inspectors — six during the first inspection, and four inspectors during the second.

Q. And they did that work, and did it thoroughly? A. Did it thoroughly.

Q. Did they do the inspection to find out non-compliance, not only with the labor law but with local ordinances and with Fire Department regulations, and Health Department regulations? A. Well, they inspected the sanitary conditions in conformity with a certain card which was formulated by the Board. Wherever violations were discovered, the Board itself sent those violations to the Department.

Q. I don't mean with reference to what was done. I mean when you got up these cards — have you got one of them with you? A. No.

Q. Will you send one to me? A. Yes.

Q. You endeavored to cover every violation, as far as you could provide for, of the law and the ordinances of the Departments? A. No, we didn't do that. Our cards were formulated to determine the sanitary conditions in the factories, and upon the basis of the facts which we discovered from the cards, we then determined the violations.

Q. You told your inspectors to find out certain facts, and if those facts were reported to you, you could tell whether or not

any of the laws or regulations of any of the Departments were violated? A. Yes.

Q. That is to say an inspection of these factories covered by your inspectors would enable you to determine whether or not any law or ordinance applicable to the subject was violated? A. Yes.

Q. And those men, therefore, got all the facts necessary for an inspection for all of these departments? A. Yes.

Q. That was done by one inspector? I mean to say, one man did it as to each particular building or factory? A. Yes.

Q. And he did it satisfactorily? A. Yes.

Q. How much did you pay him? A. Twenty-five dollars a week; \$100.00 a month.

Q. That is about the same as a labor inspector? A. Yes.

Q. The Factory Department gets them for doing one particular kind of inspection? A. Yes.

Q. Doctor, did you see any difficulty in any one inspector finding out these different facts? A. No, we didn't. Well, we — I think we secured a very intelligent group of inspectors.

Q. For \$25.00 a week? A. Some of the inspectors were interested in the movement and were worth more than \$25.00 a week.

Q. As this work progressed, you could turn again and do this work intelligently and effectively? After it had been done some time, you could turn over men to do it very much better? A. Yes.

Q. And you found no trouble in training men of ordinary intelligence to do the work intelligently? A. No, found no trouble in training them.

Q. Now, would you recommend to the Commission, therefore, that all of these inspections, whether or not the present departments be preserved, should be performed by one set of inspectors, and not duplicated, or dovetailed? A. I certainly think one of the great difficulties in the enforcement of these laws is the divided responsibility, and to concentrate responsibility in one department will improve the efficiency of the department, and will bring about better conditions — better enforcement.

Q. Now, with reference to fire-escapes, you have heard and read some of the testimony here and know the conditions. Have you

any recommendations or suggestions to make? A. Yes, I recommend, first of all, that the drop ladders be done away with. They are dangerous, and often badly placed. Factory workers have the same right as the tenement dwellers to be furnished with safe fire-escapes. In the tenement house, the tenement house law specifies types of fire-escapes that can be furnished the tenement dwellers. Now, such a law can also be enacted for the factory workers; but more important than this is the recommendation I would make for the regulation of wooden partitions. Many a fire is fed by these wooden partitions. They obstruct light. They are often erected without reference to the number of workers in the room, and again, one of the most important matters to consider is the recommendation of fire-escapes in proportion to the number of workers in factories and the height of buildings

Q. Out of the number of buildings inspected, how many were in so-called loft buildings? A. 1,411 of the 1,733 inspected.

Q. Those loft buildings were situated in great numbers in the central part of the city, adjacent to Fifth Avenue, and were comparatively new in construction? A. Yes.

Q. And the conditions as to light and air, as I understand in those buildings, were good? A. As to light, good, and can be improved upon. As to air, better than in the old buildings. But Dr. Rogers, who made a special report for our Committee, will testify that congestion of workers in a loft building very often vitiates the quality of the air.

Q. You mean there are so many of them they can't keep the windows open? A. There are a good many other reasons, I think. Dr. Rogers is an expert. But there is a very important problem that I should like to submit to this Commission with reference to loft buildings. Now, we find for example, that there were 950 in the so-called Fifth Avenue loft buildings. Of these, 661 shops were located above the sixth floor with a total of 23,832 employees, and during the busy season about 30,000 employees work above the sixth floor.

Q. That is about how many feet above the sidewalk level? A. That I can't say; I don't know.

Q. About 75 feet I should judge? A. I think more than that. Fifty per cent of all the employees in the trade are working at

the height of the sixth floor and above. I can give you more specific figures, if you wish.

Q. You may as well. A. One hundred and eighty-three were on the sixth floor, with 5,316 employees.

One hundred and twenty-one shops were on the seventh floor, with 4,304 employees.

One hundred and fourteen shops were on the eighth floor, with 3,397 employees.

One hundred and eleven shops were on the ninth floor, with 3,285 employees.

Fifty-two shops were on the tenth floor, with 2,531 employees.

Forty-eight shops were on the eleventh floor, with 3,015 employees.

Thirty-two shops were on the twelfth floor, with 1,984 employees.

Now, in such a building the danger from fire is great despite the fireproof character of the structure, for the following reasons:

First, the floor is divided into rooms by a wooden partition.

Second, the floors are littered with inflammable materials.

Third, there is no regulation as to the division of floors into rooms.

In these loft buildings the means of egress is inadequate and defective. The elevators in most of these buildings have small gates. Some of the buildings contain over 3,000 persons. The elevators have a capacity of five to twenty persons. The elevators are good in case of fire, only below the floor in which there is a fire. In an eleven-story building on Fifth Avenue containing over 2,000 people, there are two elevators with a combined capacity of fourteen persons. The halls in these loft buildings are narrow. Sixty-three of them were found by our inspectors to be less than three feet wide.

In the inspection of 1911, 310 buildings had insufficient light in the halls of these new buildings.

Q. Insufficient artificial? A. Insufficient natural light.

By Commissioner GOMPERS:

Q. When you say less than three feet wide, these halls, how much less? A. Well, I can't say definitely. I may be able to give you exact figures, Mr. Chairman.

By Mr. ELKUS:

Q. You mean those are interior halls between parts of the lofts? That isn't the main hallway of the building? A. The interior halls, and of course in some buildings, the buildings have no interior halls, because the elevator opens right into the loft.

Q. Then the tenants and sub-tenants divide that floor to suit themselves? A. Divide the floor to suit themselves, without any previous inspection by any department.

Q. Fire, Health, Labor or anything? A. No.

By Commissioner DREIER:

Q. Do the stairs go into the loft rooms direct? A. Yes.

By Mr. ELKUS:

Q. What did you discover with respect to the stairways? A. Well, I can give you the exact figures. Our inspectors found 1,951 stairways in the 1,738 buildings, showing that very few buildings have more than one stairway. Seven hundred and forty-two stairways were made of wood. Seven hundred and ten of stone, wood and stone. Wood and stone are dangerous materials for stairways. Wood burns quickly and stone heats quickly.

Q. What would you suggest they should be made of? A. Well, I am not an expert on that matter. I am not in a position to testify.

Q. I see. Now with respect to the doors, what did you find about that? A. Well, the labor law provides the doors shall open outward. Now, in the February, 1911, inspection, we found only 18 doors operated outwards. In the August, 1911, inspection, with the activity of the Labor and the Fire Departments, the doors in only 359 shops were built according to law. Moreover, doors were not properly constructed. There were still places where doors

were locked through the day, in spite of the terrible Triangle fire. Our inspectors found 25 shops with locked doors.

Q. That is, doors that led to staircases and means of egress?
A. Yes, they were locked.

Q. Did you ever furnish to the departments the information with reference to these locked doors? A. We did furnish information with reference to a very flagrant violation of the fire law, to the Building Department, Fire Department, Health Department and Labor Department.

Q. Was it acted upon? A. Yes, we can give you the exact figures.

Q. Well, I don't care for them just now. Now, what did you discover about fire-escapes in your inspection? A. Well, of the 1,738 shops inspected in August, we found only 1,886 fire-escapes, showing that few buildings have more than one fire-escape. In 63 buildings no fire-escapes were found. As a matter of law there need not be any outside escapes on high fireproof buildings. In 83.75 per cent of all shops one fire-escape to a building was found. This is obviously absurd. It is proper that the number of fire-escapes should have some ratio to the height, size of buildings and number of persons working there. Hotels are better protected in this respect. Factories are neglected. I am speaking about fire-escapes as a means of egress, although I think I have some general recommendations which recommend a fire wall.

Q. You have spoken about factories in loft buildings. Do you find any factories other than in loft buildings?
A. Yes, in converted tenements.

Q. Tell me how many there were. A. We found 169 factories in converted tenements and 134 factories in stores, and we found 21 factories located in cellars.

Q. That is, where people were employed in cellars beneath the street level? A. Beneath the street level.

Q. How were they as to light and air? A. Very defective; four, in fact, were brought as already recommended to the attention of the unions and the Manufacturers' Association that these cellars be vacated, and some action is being taken.

Q. Are they prohibited by law? A. I don't think so. I don't think cellar shops, as such, are prohibited by law.

Q. What have you to recommend with reference to fire-escapes?

A. Well, I want to recommend the abolition of the drop ladder. In the first place there ought to be no vertical ladders — no vertical stairways straight up and down, because climbing down such a stairway is dangerous.

Q. You agree with Chief Croker that they are very good for the use of the fireman and not good for the workers? A. Yes, these drop ladders weigh from 150 to 200 pounds. They are hung on the balcony of the third floor, from which they are supposed to be lifted out by the first person reaching the second floor balcony. This is a difficult and dangerous procedure for women and children. Often even this defective and dangerous means of escape is absent.

Q. Did you ever see an experiment to find out whether if you drop a ladder that way from the second or third story it would hold on the sidewalk, or whether in many cases a glass sidewalk — whether it wouldn't go crashing through? A. Well, I would like to say in this connection that only recently a man was locked in a factory and he wanted to go out. He couldn't go out through the doorway, so he went down the fire-escape. So this man took the ladder and it was so heavy that he fell down — he toppled over. He couldn't put the drop ladder in its place and he lost his balance and fell. This was done when there was no fire and no panic. Now you can imagine what would happen in many cases when there is a fire and a panic.

Q. Well, now, did you find whether or not there were drop ladders in those buildings, in all of them? A. Not in all of them. In 236 buildings our inspectors found drop ladders either missing or hung on the fourth floor, out of reach, and they were often short. Sometimes they were from six to ten feet from the ground when put in place, and the person escaping must jump this height. Not infrequently they lead into courts or areas which are entirely closed up. Sometimes they terminate on glass roofs, the first and second floor extensions. To fall upon these roofs is obviously dangerous.

Q. What did you find out with reference to automatic sprinklers and appliances for extinguishing fire? A. Well, we found that out of the 1,738 shops inspected, only 128 had automatic sprinklers. We know that they are very expensive, but we looked for chemical extinguishers.

Q. Chief Croker thinks that chemical extinguishers ought to be abolished. A. We found they had chemical extinguishers in only 135 shops.

Q. Did they have in any of those shops fire buckets? A. We found that in 375 shops there were no fire buckets, and sometimes where there was a standpipe we found that the hose was defective.

Q. Nothing compulsory in any of these things by law except standpipes? A. Standpipes.

Q. Do you favor the compulsory use of a sprinkler system in factory buildings over a certain height and of a certain size? A. I think so. I think that ought to be compulsory, because — and I realize that it is a very expensive proposition and makes it impractical to introduce a sprinkler system in a small factory — but certainly in a factory in a loft building above a certain height it ought to be compulsory.

Q. Now, with reference to light, that is lights for the employees. What did you find with reference to their having sufficient light in these buildings you inspected? A. Well, we found very inadequate light in many cases. I can give you some definite figures if you wish.

Q. I think I am going to ask you to submit those figures. You have them in writing? A. Yes.

Q. If you will give them to the stenographer, I will see they are put in the record.

The WITNESS: Now, we find this — though in general — we found that the means of protecting the workers from glare, such means as providing shades were not provided by the vast majority of employers. We frequently found a flickering light, a light which had no shade, and sometimes the lights were badly placed and our special investigator, Mr. Elliott, the editor of the "Illuminating Engineer," suggested a small and very cheap incandescent light, sort of arc light which isn't very expensive. In many cases the machines are placed away from the windows. The machines of the operators or the presses are located in the middle of the factory, and they get very little light there, and I think that some simple means of providing adequate illumination can easily be enacted into law.

Mr. ELKUS: Shall we stop now, Mr. Chairman, until two o'clock?

Whereupon a recess was taken until two P. M.

AFTER RECESS.

ROSE SCHNEIDERMAN, called as a witness, and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. Where do you reside? A. 60 Second Avenue.

Q. What is your occupation? A. At present I am East Side organizer for the Woman's Trade Union League.

Q. What was your occupation before that? A. Cap maker.

Q. A cap maker? A. Yes, sir.

Q. In this city? A. Yes, sir.

Q. Were you born in this city? A. No; born in Russia.

Q. How long have you been in this country? A. Twenty-two years.

Q. How long were you a cap maker? A. For ten years.

Q. All in this city or before you came here? A. All in this city.

Q. Now, when you say you were a cap maker you mean you worked in a cap factory actually making caps? A. Yes, sir.

Q. To support yourself? A. Yes.

Q. Did you make any inspections of buildings at my suggestion? A. I did.

Q. Of factories in this city? A. Factories.

Q. When did you make them? A. Last week.

Q. And what kind of factories, what kind of business was carried on in the factories you investigated? A. Paper box-making factories.

Q. That is boxes made of paper or of cardboard? A. Yes.

Q. That are used in which to pack all kinds of articles that are purchased? A. Yes, merchandise.

Q. So that these paper boxes come in contact with the people who buy them? A. Yes.

Q. And go into their homes? A. Yes.

Q. How many of these factories did you personally inspect last week? A. Fourteen.

Q. Fourteen? A. Yes.

Q. Now, will you take one, Miss Schneiderman, and give us the place and location of the factory or of the building it was in — what floor it was on and how many people were employed there, and tell us generally what you found? A. I investigated, first of all, a factory on West Broadway, between Houston and Bleecker, and going into that factory I became interested in the factories on the other block, being that the factory facing the West Broadway factory was so near. There was only a space of about eight or nine feet between them.

Q. You mean the rear of one building was within eight or nine feet of the other? A. Yes.

Q. The fronts being on two different streets? A. Yes; and what interested me most in this West Broadway factory was that the fire-escape led out presumably into a courtyard, which was a blind alley, and once you get down there you could not get out; there was no exit.

Q. The fire-escape from which building? A. From the West Broadway building, as well as the other side.

Q. What street was the other fronting on? A. Wooster.

Q. These two buildings were back to back? A. Yes, sir.

Q. West Broadway and Wooster Street run parallel? A. Yes.

Q. There was an open court way? A. No; just a blind alley.

Q. It is a court way? A. Yes.

Q. That is open at the top? A. Yes.

Q. Between these two buildings? A. Yes, sir.

Q. How large was that court way? A. Well, it went all the way through the block, the length of it, and the width was about eight or nine feet; that is all.

Q. Eight or nine feet wide? A. Yes.

Q. And there was no way of getting out of that courtyard or alley except through one of the buildings? A. Exactly.

Q. If you could get in the building? A. Yes.

Q. Was there a door from one building to this courtyard? A. No, there was not.

Q. Nothing but windows? A. Nothing but windows. In fact there was a sort of a glass roof over an extension from the main floor and it was barred with irons and iron spikes sticking up, so that if you did get down into the alley there were those iron spikes there that would not be very comfortable.

Q. Prevent you from crawling up and getting out? A. Yes; and the alley was terribly dirty. There was all kinds of rubbish in that alley. I don't know how long ago the inspector must have been there. It seemed to me as though he had not been there for years because of the dirt accumulated there.

Q. Now, to inspect that alley all you had to do was to look out of the window of either building? A. You had to get out on the fire-escape.

Q. All you had to do was to walk out on the platform of the fire-escape and look down? A. Yes, sir.

Q. It would not take more than a minute, would it, after you got there? A. No, when you thought of getting there.

Q. The fire-escapes from both buildings ran into this blind alley; the drop ladder at the bottom, if there was one, was that fixed to the ground? A. No; it was up a floor above — I think the second floor.

Q. So that if there was a fire and anybody went down the fire-escape and got the drop ladder down they would land in this blind alley? A. Yes, sir.

Q. And they could not get out? A. No; and I really believe the alley itself would burn because of the papers and shoes and all the kind of things like that.

Q. Also lumber? A. Yes, sir.

Q. Do you mean to say there was so much stuff on the floor of the alley it would burn up of itself? A. Yes.

Q. That was the first thing or one of the things you noticed about this building on West Broadway? A. Yes, sir.

Q. Can you give me the number? A. Yes, sir; I have the number here if you want it.

Q. I would like to have it if you don't mind. A. 495 West Broadway.

Q. Now, tell us what else you found in inspecting that building. A. In this factory the lofts are generally long, those that the paper box makers use, because of the tremendous room they have to have for stock. There is also much paper and cardboard and wooden slats that they use to fix the boxes up with glue, therefore, the loft is very long. The machinery most of the time is placed there at the back of the room, of the loft, or in the front, and most times that bars the exit to the windows, you see, and if there is no —

Q. (Interrupting.) That is the window where the fire-escape is? A. Yes. Where there is no machinery there is usually a very wide table, about five feet wide, they use for pasting the board on, and is placed in front of the window because they have to have the light.

Q. So that in order to get out of the window you have first to get on the table? A. Exactly; and the workers are placed in the middle of the loft, which means that they do not get the natural light from the windows. They have to have either gas or electricity to work by. And then, of course, the halls and stairways are wooden stairways and uncovered by anything. The halls are quite narrow; the door opened inward, and the factory in itself, terribly dirty; that means so much rubbish on the floor from the paper, from the boxes that they use — the stripped-off pieces.

Q. Was there dirt besides on the floor? A. Yes, I should think there was. The window ledges were terribly filthy; you could not get near them, and everything else — the sink, where the girls are supposed to wash their hands; the tables filled with glue.

Q. How many floors did this particular box factory occupy? A. Just one floor.

Q. About how wide — twenty-five feet? A. I am not good at measurements.

Q. Is it the width of an ordinary building? A. Yes, sir.

Q. Not an extra wide one? A. No, not extra wide.

Q. It had how many windows in front and how many in back? A. Four in front, and four in back.

Q. How many girls were employed there — were they all girls employed there? A. Yes, they were all girls employed there. There were not many girls. This man has a rather small concern. I think there were just about six girls.

Q. And you say the floor was littered with paper and refuse?
A. Yes, sir.

Q. How long would you say it had been in that condition — or rather, how long would you say the place had been without being cleaned? A. Well, there is a difference, you know, from having a place cleaned, and from having the paper removed; the paper might be removed, and I think in order to keep the floors clear they would have to remove the paper at least twice a day, because they turn out hundreds and hundreds of boxes a day.

Q. Go on and tell us what else you observed with reference to this factory on West Broadway. A. Well, there were two toilets, one for men and one for women, but they were adjacent to each other and quite dirty.

Q. They were very dirty? A. Yes; no dressing rooms unless— There was just a corner of the loft partitioned off, and mostly a dark corner, and in a good many cases even that was filled up with boxes, too. Then, too, the girls have to stand, most of them, all day.

Q. All day long? A. Yes.

Q. How old are these girls in this particular factory you speak of? A. I should think from fourteen up to about twenty or twenty-one.

Q. What else was there about this particular factory on West Broadway? A. Only that I think it was awfully unsafe, because the material is inflammable, and there was hardly any exit from the fire-escape, as I told you.

Q. Could not get to it at all? A. No.

Q. Wooden stairs? A. Wooden stairs.

Q. Wooden partitions? A. There were no partitions.

Q. How about the girls eatings their lunches? Did they eat right where they worked? A. Yes; they would have to do that. They have no other place to eat them. They would have to eat off the dirty tables.

Q. Were there any appliances to be used in case of fire? A. No, not at all.

Q. This fire-escape was the ordinary one with vertical ladder?
A. Yes, sir.

Q. Not a staircase? A. Straight ladder.

Q. And the only way they could get out was either by wooden stairs or by the fire-escape? A. Fire-escape to the blind alley.

Q. What else was there about this building, if anything? A. I do not think there is anything else about that.

Q. Did you have any photographs made of that? A. No; not of that building.

Q. Go on and give us the next one you visited. A. The next factory we visited was on Wooster Street, and there the employer occupies the store. You walk in right off the street.

Q. Yes. A. That also is very long and the only light that comes into that place is through the glass skylight, which goes into this blind alley.

Q. They have another blind alley — oh, this is the building? A. Yes, facing that, and then that, too, was barred, you see. From there you could not even get into the alley, the only exit being a door from the street.

Q. The store was on the ground floor? A. Yes, sir.

Q. So that of course you would not want a fire-escape? A. No.

Q. But they can go right out on the street? A. Yes, sir. But generally there was an office right near the door and the space was very narrow to go out, and if the box factory would get on fire it would be terrible.

Q. A very quick fire? A. Yes, sir.

Q. And the girls, I suppose, are working in the rear? A. They work in the rear and in the middle of the loft.

Q. And there is no way of their getting out except in front? A. No.

Q. The entrance to the rear to this alley even being barred up? A. Exactly. And then another thing about this factory is that they also have machinery in the cellar. The cellar was not only used as a workroom, but also as a stockroom, and narrow wooden stairs lead down to the cellar, and in the cellar we found the men working and it had no exit at all. The only exit would be through the stairs up into the next floor.

Q. Wooden stairs? A. Yes.

Q. What was the condition as to cleanliness? A. Piled up rubbish and boxes and paper.

Q. All inflammable? A. Yes; everything.

Q. Men smoking cigarettes? A. Not in that factory. I did find in one or two, I think, where the employer himself was smoking — not the men, because, I think, they have not got much time for smoking where they are working, but the employer did indulge in that luxury. And in this factory, of course, the conditions are the same as everywhere. They had the toilets, two toilets you know, one for each, but always adjacent to each other, and pretty dirty most of the time.

Q. Apparently not cleaned for some time? A. Yes; they looked that way. And the floor full of paper and everything like that. But the worst factory on that block that we got to, had the store, the main floor, the cellar and the first floor, so you see that if these three started burning there would not be any chance for anybody in that building to get out.

Q. These were in the same building? A. Yes; one firm occupied the cellar, the main floor —

Q. And the floor above? A. And the floor above.

Q. And they were all in the same business? A. Same business.

Q. And all in about the same condition you describe? A. Yes, sir, and this again is on Wooster Street, with the rear of the house going into Greene Street, and the blind alley is true there, too.

Q. The same thing? A. Yes.

Q. The fire-escape running into the blind alley? A. Yes.

Q. What were the numbers of these buildings on Wooster Street? A. I have all the numbers.

Q. Will you give them to me? A. Yes; surely.

Q. Were these cellars lighted at all? A. Just by an incandescent light. There was 176 Wooster. I have not spoken about this factory. If you will take the whole block between Houston and Bleecker —

Q. On Wooster? A. I visited every factory.

Q. You visited every building on that block? A. Yes, sir.

Q. There was a factory in each building? A. Not every building; but I saw all the paper box factories on that block I visited.

Q. How many were there? A. I think there were about six or seven on that block.

Q. Were they all in the same condition substantially as you have described? A. Pretty much the same condition.

Q. As filthy as to the sinks and as to the lavatories, dressing rooms and everything? A. Yes, sir.

Q. And as to the fire-escapes? A. Yes. One house there was 176 Wooster Street. That also is a rear house.

Q. Yes. A. And one employer who has one of the lofts of the front building also uses two lofts of the rear house, and they are connected by a sort of a bridge.

Q. Yes. A. A platform. The platform is of wood; only the railings are of iron, and very frail, too; very frail platforms, and we found workers working in this, too.

Q. The only way to get to these lofts was across this platform? A. Yes, sir.

Q. Was there any fire-escape on the rear building? A. I think there was one; yes.

Q. Leading down into the alley? A. Yes; down into the alley, and there, too, there was filth in the alley, and the fire-escape was dirty.

Q. The fire-escape itself? A. Yes.

Q. How did you find the condition of these fire-escapes; were they dirty or filthy or not? A. They looked very filthy and pretty frail. I do not see they could stand any pressure at all.

Q. When you say they were filthy or dirty you mean there were things piled up on them? A. Yes.

Q. Or simply dirty? A. No; things piled up.

Q. Boxes of materials? A. Not boxes, but old clothes and paper bags.

Q. Refuse? A. Yes, sir.

Q. Old shoes and things like that? A. Yes.

Q. Thrown there? A. Yes.

Q. In your judgment how long had these things been accumulating there? A. Well, I don't know—they might have been there for a month—they might have been there longer.

Q. I mean the appearance of them, the dirt on them? A. They looked pretty old and worn.

Q. Did you examine a building in Ridge Street particularly? A. I did; and that is the building which I think is the worst of any.

Q. What number is that? A. 89 Ridge Street.

Q. Between what streets is that? A. That is between Delancey and Rivington.

Q. What kind of building is it, how many stories high? A. Well, the outside building 89 Ridge Street is three stories high, that is the front building and it looks very clean from the outside, but there is no entrance; then you have to go through a narrow alley. That is about — I should not think it was more than three feet wide.

Q. Three feet wide to get to the building itself? A. Yes.

Q. But is No. 89 Ridge Street on the street? A. It is on the street, but it has no entrance from the street. You have to go into this alley and there you find an iron stairway. You see it is an open stairway.

Q. Is that the factory on the alleyway that you refer to? A. Yes.

Q. It is 89 Ridge Street? A. Right here (indicating).

Q. You mean you cannot go upstairs here? (indicating on photograph) A. No.

Q. Except by going in this alley-way on this photograph? (indicating). A. Yes.

Mr. ELKUS: I offer that in evidence.

Same was received in evidence and marked Exhibit No. 3.

After you go through the alley-way which you say is about how wide? A. I do not think it is more than three feet. I am not a very good judge of distance.

Q. How far back do you walk before you come to the staircase? A. I should think you would walk about ten or twelve feet, the whole width of the building.

Q. Is that another picture of the alleyway showing you how you get into it? (Producing another photograph.) A. Then this is another alley.

Q. In the same building? A. Yes.

Q. Now, you walk in this alley-way the whole distance of the building, then what do you come to? A. Then you come to the court way where the stairs of this building are located and toilets, and then the front part of the rear building.

Q. Now, pick out the photograph, if you will, which represents the courtyard. A. (Selecting a photograph.) This represents the courtyard and you will see this is the alley-way, and this is the court way, it is built away from the lot — that is the way you come in.

Q. These are toilets, are they? (indicating on photograph). A. Yes; these are toilets.

Mr. ELKUS: I offer that in evidence.

Received and marked Exhibit No. 4.

Q. Now, if you will explain to the Commission, you come in this alleyway and come around these toilets? A. Yes.

Q. And then go up the staircase into the factory? A. No.; in this front building there are no factories, but there is a Hebrew school there, and in the afternoon the Hebrew school is packed with many children.

Q. How many? A. I do not know.

Q. There are a number of people going there in the afternoon? A. Yes; judging from the seats there must be quite a number of children. I should think about fifty.

Q. They occupy this floor? A. No, they occupy the first floor.

Q. Do they have to come in the alley-way? A. Yes, sir.

Q. And around these toilets? A. Yes.

Q. And then the factory building is to the rear of this, is it? A. Yes.

Q. Is this the entrance to the factory building? (Exhibiting another photograph.) A. No; this is the rear courtyard of the factory building.

Q. That is another courtyard? A. Another one.

Q. Which of these is the entrance? A. This right here is the entrance to the rear building (indicating).

Q. This opening on the floor of the court yard is the entrance to the rear building? A. That only goes into this alley.

Q. Going into another alley? A. Yes; built up alley. One side of it has a wooden partition.

Q. This that I mark A is the only way you can get in after you get in the court yard to the rear factory building? A. Yes.

Q. And that does not go into the building itself? A. No.

Q. But goes into the courtyard? A. Yes.

Q. And is this photograph a correct representation of that courtyard as it was when you were there last week? A. Yes, there was a bale of rags there.

Q. Just as it is in the photograph? A. Yes.

Q. And this iron staircase — A. That leads up to the Hebrew classes.

Q. And that represents the width and size and general dimensions of the courtyard? A. Yes, this was right in the corner here.

Mr. ELKUS: I will offer this in evidence.

Photograph received in evidence and marked Exhibit No. 5.

Q. Now, after you go in A — we will mark this A also — you go through a narrow alley? A. Alley. You see this is the alley coming from the other side going into the rear courtyard (indicating on photograph). In here there is a rag factory.

Q. Off to one side? A. On the side. Then when you get up here (indicating) is the paper box factory.

Q. Up the staircase? A. Up the staircase.

Q. After you get through the alley-way, coming through from the other side — this is really the entrance? (Indicating on photograph.) A. Yes.

Q. Marked A on the other photograph, the last exhibit. You walk through this narrow alley, with a rag factory on one side of it? A. Yes.

Q. After you get through you turn to your right and go up the staircase to the paper box factory? A. Yes, sir.

Q. Is that the only means by which the employees of this factory can get to it? A. Yes, sir.

Q. Or get out? A. Well, there is a fire-escape from the front part of this rear building, but only one window leads to this fire-escape, and that is a very frail fire-escape, too.

Q. That fire-escape leads down to where — to the courtyard? A. Yes.

Q. To the same courtyard from which you have to go out, through the alley-way again? A. Yes.

Photograph offered in evidence by Mr. Elkus. Received and marked Exhibit 6.

Q. Now, after you get through, after you get into the building—— A. (Interrupting) I want to say that that building, the rear building is five stories high, while the outside one is only three.

Q. The rear building towers up above the front one? A. Yes.

Q. In this five-story building how many factories are there? A. Rag factory and paper box factory and factory where they make men's clothes, away up on the fifth floor.

Q. These three factories are in that building? A. Yes, sir.

Q. How many lofts does the paper box factory occupy? A. Just one.

Q. How many employees are there in that paper box factory? A. About twenty.

Q. Twenty on this one floor? A. Yes.

Q. About how large is it? A. Oh, it is very small, a very small place; it is not the usual——

Q. Is it as large as this enclosure here? (indicating) A. That would be part of the factory, and the other part would be about up to there (indicating), up to the end of this platform.

Q. That would be about thirty feet by fifteen; is that right? A. I think so.

Q. And there are twenty girls in that place? A. Yes, and the offices and stock room and everything else.

Q. How many men? A. There are just about four or five.

Q. And they were at making paper boxes? A. Yes.

Q. Now, despite the condition of that place, were there machines in it? A. Yes; the machines are near the rear windows of the rear house, and the tables are at the front windows of the rear house. Then the part that is partitioned off, where the office and stock room and also where the cutters stand. There are two or three windows also out to the rear house, but they are very small, and these windows were barred. The factory in itself is terribly crowded——an awful lot of paper. When we were there to take a picture of the place, the employer when he heard me, said to the girls, "Now, don't throw any papers on the floor," and he himself was engaged in sweeping the floor just at that time, and when we asked him to allow us to have a picture taken of the place he refused. He said he would have to ask the other box

manufacturers whether they were subject to that, and if they allowed it, he would allow it, too. And then after the man went back with the police order he would not allow the taking of the pictures. The ceiling is terribly low. I don't think there is any remedy for that place but to tear it down.

Q. The whole building? A. Yes, it is very old and dilapidated. Also, here the toilets are in the yard.

Q. You mean they had to go through the alley and down the iron staircase? A. No; in that courtyard, and there is only one for both sexes.

Q. One for both? A. Yes.

Q. That, of course, is against the law. Was it clean or dirty? A. Well, it is according to one's standard of cleanliness.

Q. Well, I mean the ordinary standard? A. Well, to the ordinary standard of cleanliness it would not be very clean, but sometimes you know, when inspectors come around they have an idea how clean people that toil ought to live, and so on.

Q. Tell us something more about the appearance of that factory, this paper box factory? A. I don't know than any words of mine can really describe it, it was so terrible, so filthy and dirty and unsanitary.

Q. Bad air? A. Bad air! Well, you can imagine what air you would get from the rear of the rear house.

Q. Was there a yard in the rear of the rear building? A. Yes.

Q. How large was the yard — a small place? A. I think that that picture represents it there.

Q. This one that I have in my hand? A. Yes.

Q. That is the rear of the rear building? A. And here is another of the rear buildings,

Q. Going right back on it? A. Yes.

Q. This staircase, did that go into the paper box factory? A. Yes; there is a barrel (indicating). Here are the partitions (indicating); these are the windows (indicating); here is the office window (indicating). Here is the partition (indicating). This way the girls go in (indicating); this is the door to the office (indicating).

Q. The girls or anybody could get out of the rear courtyard by this staircase? A. Yes.

Q. Which is shown here? A. Yes.

Q. Where could they go after they got in this courtyard? A. They would have to go through this alley here (indicating) to get out.

Q. Go back to the building again? A. Yes.

Q. There was not any other way of getting out? A. No other way of getting out.

Photograph offered in evidence by Mr. Elkus. Received and marked Exhibit 7.

The WITNESS: This man makes fancy paper boxes with glass tops for holiday goods, and so on.

Q. They are sold in the department stores? A. Oh, yes; neckwear and things like that.

Q. They go into our homes? A. Yes; absolutely.

Q. The women and the men eat their lunches right where they work? A. Yes; they have no other way of eating their lunch, unless out in the street.

Q. Did you go in the rag factory? A. Yes; I went in the rag factory.

Q. I show you this photograph and ask you if that is a correct representation of the rag factory as you saw it last week? A. Yes.

Q. Was it dirty and filthy? A. Just as you see it there. This is the wooden ceiling you see (indicating).

Q. Men or women working there? A. Men.

Q. Smoking? A. No; I did not see them smoking.

Mr. ELKUS: I offer that in evidence.

Received in evidence and marked Exhibit 8.

Q. Take Exhibit 7; the only way that anybody could get from that courtyard out was through the same building out of which they came, and through the alley-way marked A; that is right, is it? A. Yes. Yes, that is the alley.

Q. Then they would have to walk through the entire building, through another court yard and through another alley to get to the street? A. Yes.

Q. Now, give me the numbers of the other buildings where you examined paper box factories. A. I visited some on the Bowery; 82 Bowery; at 82 Bowery there are three paper box factories there in this one building.

Q. Yes. A. And the hall — well, you just go into a part of a hallway, then there are stairs leading right up. There is not really any hallway there at all. Then the doors of the factories open right out onto the landing of the stairway. You see, when once you have got on the stairs you have not got any way to turn but you must either go up or down.

Q. No landing at all? A. No landing at all until the fourth floor.

Q. You mean the stairs run right up, with doors opening right direct from the stairs into the loft? A. Yes, sir.

Q. When you step out of the door you have to go right up or downstairs? A. Yes.

Q. If a number of people were going at the same time and were in a hurry they would fall downstairs? A. Yes; I know I almost fell down.

Q. You almost fell down, walking done alone? A. And, of course, this —

Q. (Interrupting) Wooden stairs, of course? A. Wooden stairs.

Q. And wooden partitions? A. Wooden partitions; the ceilings inside the factories are metal ceilings.

Q. How about the doors, did they open in or out? A. Opened in, mostly all the doors opened in. I think on the third floor of this building there was one door that opened out; that is all. And here, too, when I got on the fire-escape, I found that the iron shutter from the window barred the place where the ladder was, the exit from the fire-escape.

Q. You mean the iron shutter being opened? A. Yes, sir; barred the exit from the fire-escape.

Q. You could not get to the fire-escape? A. You could get to the fire-escape, but not to the place where the ladder was.

Q. Not to the hole in the bottom of it where the ladder was? A. No.

Q. So that anybody who got out there would be in a trap?
A. Absolutely.

Q. Could not move? A. Could not get down unless they jumped.

Q. What were the conditions of the fire-escape there in this building? A. Well, the fire-escape was clean; the fire-escape in itself.

Q. Was clean? A. Yes.

Q. How about the floors of the factory — dirty? A. Well, as usual, with the cuttings of the paper on the floor, the glue, etc.

Q. Go right ahead. A. Here, too, there were two toilets. I think here the toilets were not as bad as in the other factories visited.

Q. Is it fair to say that the general condition of these factories was that there was litter on the floor which ought to have been cleaned up? A. Yes.

Q. And that the way to the fire-escapes was in most cases blocked? A. Barred absolutely. I think it is quite fair to say that.

Q. And that the toilets and other sanitary arrangements were bad in all that you have examined? Now, will you give me the numbers? A. I want to give you one place we examined on Wooster Street, where the place was very nice and clean. I don't know whether that is owing to the fact that they make very small boxes and don't need much room.

Q. What number was that? A. That is a paper box manufactory; the name was J. Cohen & Son, 179 Wooster Street, on the fifth floor, and that was about the cleanest on that block. It was quite nice, and also the dressing room. None of these places really had what we would call a dressing room; just a partition.

Q. Yes. A. That was near a window and air and light coming in, and not right next to the toilets as in most cases.

Q. Were the toilets clean there? A. Yes, clean, too. The one thing we did find is that the exit to the windows was not very good there. There is a large table in front of the front windows, and the girls sat working with their backs towards the windows, and the space is very narrow and they had large barrels which they used as sort of tables.

I told them that if a fire happened, when you started to run out you would fall all over the barrels, and it would be a question whether you would get to the window. The fire-escapes were nice, too. Another place that was very nice was a factory on Allen Street, where we thought we would find terrible conditions. We were quite surprised. I do not know whether it was owing to the Health Department that the walls going up the stairways were all whitewashed and pretty clean; and also inside the factory things were very nice there.

Q. Now, give us the numbers of the other buildings that you examined that you did not find in good condition. A. 179 and 183 Wooster Street, 49 West Broadway, 167 Wooster Street, and 188 Wooster Street; that is where they occupy three floors, and with very little chance of escape in case of fire—that is 188 Wooster Street. That is all on Wooster Street. Now, I want to tell you about some factories on East 4th Street.

Q. Go right ahead. A. One shop was in the basement of the building—a sort of store basement; it is quite long—the loft is quite long. The front part is stacked with boxes and materials used in the making of the boxes. The girls sit way back in this place.

You have to go down three stairs in order to get to the place where the girls sit, which means that where the girls sit is much lower than the front part of the store. The only means of light there is a skylight, which comes up—up against the stone wall of the next building—very little light. Also, there was a pot of glue being warmed by gas, and no protection whatever to this pot of glue. The toilet there—we asked for the toilet, and the employer showed us the toilet. He said that that was used by women, and I saw a man coming out of it. I said, “What do you call that?” He said, “The sink is in there and they have to go there to wash their hands.” Continuing, he said, “Don’t you see that sign there ‘Some one in’? That is hung up there to indicate that someone has gone in.” This was in a most filthy condition. It had no board on it, and it was absolutely filthy.

Then I asked for the dressing room; the employer seemed to be quite astonished at my question. He said, “Dressing room—I think we have a dressing room; let me see.” I said, “No, you

know you have none, don't you?" He said, "No; I don't think we have."

Then around to the rear, which went up to the stoop and through the dark hall, and underneath that stairway, that was used as a dressing room. He said, "That is used as a dressing room, but they don't want to hang their clothes there." I said, "I don't blame them."

Q. How many girls were employed there? A. I think about eight girls.

Q. Young girls? A. Yes. I also want so say that in several of these cases they have girls working under sixteen years of age, and working nine and a half hours, which I think is against the law.

Q. Did they have certificates from the Board of Health? A. They claimed they did.

Q. Eight hours is the law? A. That is what I think; eight hours is the law, but one of the children told me that they worked nine hours and one half—nine and a half hours, and were allowed a half an hour for lunch. The remark of the factory inspector at the session this morning is now recalled to my mind. In most paper box factories they don't have more than half an hour for lunch.

Q. Do they work on the piece work plan, or do they get a weekly salary? A. The majority are working for a weekly salary.

Q. What hours do the girls under sixteen put in? A. From eight to six o'clock.

Q. With half an hour for lunch? A. With half an hour for lunch.

Now, talking about wages, I want to say that the paper box-making industry interests me mostly because I was with the girls when they were out on strike last fall, and I saw the misery they were in. When they were out one week, we had to give them their breakfast; we had to take them to the restaurant where they could get a cup of coffee and cake. Their wages ranged from four to nine dollars. I suppose some of the men in the strike had to support families and themselves on six to nine dollars a week.

Q. What do the girls get? A. They start with four dollars a week and go up to nine dollars.

It seems to me that that is a very vital question — the question of wages, because we know that people die from other causes besides being burned alive. I think that that is a very poor life to live, and certainly not the life for American citizens to be leading. I think the wages and hours are the most fundamental evils for the people that work, and I don't think it could be different unless we establish a better wage scale. A girl to live decently, without having to ask her relatives to help her, must start with a certain amount of money — start at a certain salary.

Q. Is there anything further, Miss Schneiderman, that you can tell us about? A. I don't know.

Q. You have given us the list of all the buildings you have examined? A. Yes, sir.

Q. And the general conditions in most of them? A. Yes, sir.

Mr. ELKUS: Are there any questions that the Commissioners would like to ask?

Miss DREIER: I would like to know whether anything was said about the rags being over in the rear — being brought into the rear building; did the other tenants complain?

The WITNESS: I found out that the box maker complained about the rag factory, and when I spoke to the widow who was running the rag factory, she told me that he complained because he did not have enough room to stack his boxes up in the courtyard; when this women got her bales of rags in the court yard, there was no room for the boxes, so that that was really self-interest. It was not because he thought it would harm the escape of his employees, but because he needed the room that this widow took with her bales of rags.

Miss DREIER: In the second rear building — was there any exit to the other rear courtyard which was connected — connecting the tenement with Attorney street?

The WITNESS: There was no connection whatever; and also here there was on the main floor of this rear house, there were

rag people there too; two of the rooms I looked into — walked in, and they looked as though someone made use of the rooms at night — that people slept there.

Q. A sleeping room? A. Yes: Oh, they were in a filthy condition.

Q. This exhibit, No. 4, shows the court yard between the front and rear buildings; altogether there are three toilets; who uses these? A. They are for the use of the school.

Q. The fifty boys, or girls? A. I think both.

Miss DREIER: As I understand it, this Ridge Street went right through to Attorney Street?

The WITNESS: Yes.

Miss DREIER: I want to know what the house on Attorney Street was, a tenement or factory?

The WITNESS: The house on Attorney Street was a tenement house, where they lived.

Miss DREIER: And the only fire exit inside or in back, was into this courtyard, which had no escape except the courtyard of the tenement?

The WITNESS: Yes.

Q. A five-story tenement? A. Yes, sir.

Mr. ELKUS: I thank you very much, Miss Schneiderman. The Commissioners are very grateful to you, I am sure, for your help.

The WITNESS: I shall be very glad to help them at any other time, if I can.

Dr. HENRY MOSKOWITZ, a witness recalled, testified as follows:

Examination by Mr. ELKUS:

Q. Doctor, have you made any investigations, or have you had any made as to crowding and ventilation in factories? A. We

have made investigations. We made one general investigation, and one special investigation was made by Dr. Graham Rogers, for the committee. Dr. Graham Rogers is the medical expert of the State Department of Labor. Almost invariably the inspectors reported over-crowding.

The law allows two hundred and fifty cubic feet of air space per individual. Our inspectors report that where the worker has the two hundred and fifty cubic feet of space, that the floor is littered up by machinery and bulky material; it is not taken into consideration by the law. The result is, that since the purity of the air does not depend primarily upon the amount of cubic air space available, but rather on the amount of air entering the shop, the smaller the space per operator the greater change of air needed, and the greater the necessity of ventilating devices. As a rule, few shops were found where ventilation was good or even adequate.

In the majority of the shops, the only means of ventilation were windows. The amount of gas burnt interferes with ventilation. It generates poisonous carbon-monoxide gas from leaky pipes, and affects the health of the worker decidedly.

There is little doubt that the overcrowding in shops, and the bad air, has something to do with the predisposition of the garment worker for tuberculosis. Many pressers suffer from anemia. In new buildings, provision must be made for artificial ventilation. The cubic air space for the worker must certainly be increased.

That is a defect of the labor law that we discovered from our investigation, and I am quite certain that Dr. Graham Rogers will present to the Commission the result of his scientific investigation to show that the two hundred and fifty cubic feet of air space are very inadequate for the worker.

Q. Do you know this building at 89 Ridge Street? A. Very well. Our board had a great deal to do with this building. We had a cloak establishment in 89 Ridge Street, and Dr. Price made a special investigation, and the board officially declared the establishment unfit for working purposes and ordered the man to vacate, and the man was forced to move.

Q. At 89? A. At 89.

Q. That was on account of the building itself? A. And on account of the conditions described by Miss Schneiderman.

Q. Had you any help there from the authorities? A. Well, we did write to the authorities, I think. I will be very glad to submit to this Commission the entire procedure with reference to 89 Ridge Street.

Q. We shall be very glad to have you do so. Now, with reference to inspections about sanitary conveniences; what did you find? A. We found many defects. In the shops, the walls and ceilings were found covered with paper. This is the worst kind of dressing for a wall or surface, as it catches and holds dust and is not clean. The best means of dressing surfaces is probably light colored oil paint. In a hundred and forty-four shops the walls and ceilings were found dirty.

In forty-four shops water closets are located in the yard; two hundred and forty in the halls. These are, as a rule, common to both male and female.

Q. That is contrary to law? A. That is contrary to law. Many of the water closets in the shops are improperly separated; the screening is flimsy. The worst conditions with respect to water closets were found in converted buildings and small lofts, where the water closet accommodations have been put in as an afterthought by the tenant. This is a menace to the health and morals of the workers. The legal limit of one water closet to every twenty-five persons is exceeded in many shops, in some of which a ratio of one to eighty-five were found by our inspectors. The condition of these closets with respect to flushing is sometimes scandalous.

Q. When you referred to one to eighty-five — that meant men and women? A. Men and women.

Q. This is under the jurisdiction of both the Labor Department and Health Department? A. And Health Department, where the conditions manifestly affect the health of the workers.

Q. But primarily, the Labor Department has absolute control? A. Yes.

Q. And the Health Department only in cases where there is danger of affecting the health? A. Under the statute, it is given power to come in.

I want to submit to the Commissioners some general recommendations:

First. Restrict the height of loft buildings for manufacturing purposes.

Second. Make provisions that in every loft building a fire wall shall be erected. We regard that as the best method of fire-escape.

Third. See to it that the factory law provides safe fire-escapes for the workers; that is, the factory law should be for the workers what the tenement house law is for the tenement dwellers. It specifies types of safe fire-escapes which are acceptable.

Fourth. Make some provisions for exit and means of egress in proportion to the height of buildings and the number of workers employed.

Fifth. See to it that every factory has some form of fire extinguisher. If automatic sprinklers are too expensive, cheap chemical extinguishers can be provided.

Sixth. Let every manufacturer submit a plan of his factory to the Labor Department before he occupies a new loft. In this way, the cutting up of a loft into small rooms divided by inflammable wooden partitions, which shut off light and create small rooms in which the workers are congested, can be avoided. These are general recommendations that we wish to offer.

Q. Is not a great deal of the trouble caused by the fact that the responsibility for both the erection of the building and the safety of the building — the appliances to be used in case of fire, and the sanitary conveniences, are under the control and management of different boards, both state and local? A. That has a great deal to do with the inefficiency of the enforcements of the various provisions.

Q. Would it not be possible to have — for instance, to have one body or Commission to do all the inspecting, and ascertain the facts as to each building, having in its possession plans of all buildings required to be filed there? Then competent persons

could take the work of this board — to ascertain the facts — and report to the various departments the violations and see that they were enforced? A. I think there must be some centralization — there ought to be more centralization, under one control. That is one of the difficulties from which we suffer in the enforcement of our labor laws and other laws with respect to the safety of the worker.

Q. Then what was said by Mr. Croker yesterday is true?
A. Yes.

Q. That when you have an accident, or fire, all of the departments side-track their responsibility? A. Yes, sir.

Q. What would you suggest this to be, a State or local department to have charge of this work? A. Well, this is a very difficult matter. I am not in a position, at the present time, to offer a judgment.

I think that for the city of New York, one centralized bureau would be very effective. I know it would be very difficult to avoid confusion of jurisdiction, but if we can have a general board — if you can centralize responsibility upon one department, you will make further progress.

Q. Suppose you had a state department, having in charge this matter, with one superintendent or deputy, or whatever you are pleased to call him, for New York city, and one for the State?
A. That would be desirable.

Q. Now, Doctor, what have you to suggest with reference to the labor laws? Did you find that any of those places used as factories, were used as sleeping rooms? A. Yes; we did.

Q. Many of them? A. In a number of cases. I have got the definite data here. We find that the labor laws are very vague and inadequate, and are left, at times, to the discretion of the Commissioner of Labor. I appreciate that this is necessary in some cases, but there is need of definite standardization.

The provisions in the law with respect to light, sanitary care and comforts are neither specific, mandatory nor standardized. The enforcement of these laws is hopelessly neglected. I don't want to go on record at all as criticising the Commissioner. On the contrary, I would like to state that I have considered him one of the very best men we have had in recent years. But I wish

to say that fifty-seven per cent of the working population of the State of New York is located in the Greater City. Forty thousand industrial establishments in the city are inspected by a force of fifty-seven inspectors, so that we have not a sufficient inspectorial force.

I would suggest changes in the labor laws, making them more definite, and also an increase in the force of inspectors. This is a very important matter which I would like to refer to the Commissioners.

Now, there is another thing I wish to call to the attention of the Commission, and that is this: it is very difficult to make a general standard of sanitation for all industries; in fact it is impossible; it would work an injustice in particular instances — particular industries. It seems to me that there ought to be some bureau — a State Medical Bureau, or Bureau of State Medical Inspection, that may be independent, or a part of the actual Labor Department, which should have the power of making sanitary rules for the various cases, and for the purpose of ascertaining the sanitary conditions; then, to formulate standards which are adapted to the conditions of each industry. In other words, to give its chief of department the power, practically, of legislating for the particular industries. A great many employers of labor find that the general statute works an injustice in specific cases. In order to avoid this, we ought to make provisions — formulate sanitary rules that will be adapted to the various industries, either the State Bureau of Medical Inspection, or State Medical Board, who should have the power of making these sanitary rules, or formulating standards. I think that is one way — one matter in which England is ahead of us.

Q. Do they do that in England? A. In Great Britain.

Q. How about Germany? A. I think in Germany, too.

Q. Is there anything further, Doctor, that you desire to testify to? A. Yes, sir; I would like to say something, generally, about the lighting conditions and lunch rooms. I would like to submit some statistics, with your permission.

Mr. ELKUS: If you will send them to me, I will have them put on the record.

The WITNESS: I want to call the attention of the Commissioners to the fact that only in seventeen per cent of the shops inspected was any attempt made to protect the eyes of the operators from glare by suitable shades and windows. Some sort of shade was found in 466 out of 1,738 shops inspected in August. There were eighty-nine shops where they had separate lunch rooms provided; that is, in eleven hundred and eleven, lunch is eaten in the shop. This does not permit cleanliness, and is unhealthy in many respects. I want to say, too, that Mr. Elliott, who made a special investigation for our Board, has recommended some simple devices to prevent the eyes —

Q. (Interrupting) You told us about that, I think.

The VICE-CHAIRMAN: There is one question I have to ask; what is your idea of separating the city from the rest of the state? A. I think the enforcement or administration of the law, if it is centralized, is more effective; but I appreciate that the conditions in New York are quite difficult, and that it may be necessary to have a centralized municipal department separate from the department for the rest of the state. I can easily see the difficulties involved in having a general State Department, and not covering New York city alone; but I believe the centralization is necessary, and that centralization of responsibility is necessary to secure effective enforcement.

The VICE-CHAIRMAN: In other words, you think a Commissioner appointed for the city of New York would be more responsible than a deputy representing a man appointed from another part of the state?

The WITNESS: It all depends upon whether the Commissioner had all the power necessary.

The VICE-CHAIRMAN: Assuming that he had?

The WITNESS: If he had the the power.

Mr. ELKUS: Is there anything further?

By Commissioner DREIER:

Q. May I ask a question? A. Yes.

Q. You say the Board used inspectors generally. I want to know whether that would be a fair basis upon which to estimate inspections from the factory inspection of a state department?

A. I do not think it would be altogether fair. In the first place, the work exacted from our inspectors is somewhat different in character. They ought merely to make an inspection, an investigation. It is not the same kind of work; that is the work of a practical inspector. Besides, they were, I think, a higher class of men and women because they were very much interested, and I am sure that we could not have paid them adequately. We could not get that same service from other inspectors.

Q. Would you have to pay a higher salary? A. We would have to pay a higher salary.

Q. A very much higher salary if you wanted to get that class of inspection or that type of inspector? A. Yes, very much higher salary.

There ought to be a check up all the time. There ought to be at least two inspections a year. I am very sure that in many of the factories there has only been an inspection once a year and in many factories no inspection at all.

By Commissioner GOMPERS:

Q. This Joint Board of the Employers' Association that you have spoken about in the Cloak and Suit Workers, that is the result of a controversy? A. Out of the last general strike.

Q. In both organizations? A. In both organizations.

Q. And one of the conditions of the settlement of the dispute was the arrangement for this mutual enforcement of better sanitary conditions? A. One of the chief grievances, in fact, one of the important grievances was the deplorable sanitary conditions of the shops.

By Mr. ELKUS:

Q. It is your opinion that this Joint Board of Sanitary Control — that law at least ought to be had creating an official

board for that purpose? A. An official board for that purpose, Mr. Elkus, because we regard the standard of the labor law as very low and we are insisting upon proper conditions; that is the reason why we are doing it.

By Commissioner DREIER:

Q. Is there any way we could get a board of Sanitary Control in other industries? A. I think the method can be followed in other industries. The ladies tailoring industries of this city has accepted this as a method, as a result of the last strike.

Q. It would have to involve the organization of the workers? A. It would have to involve the organization of the workers, as well as the employers; you have got to get two strong organizations.

Q. Are all these factories you investigated within the organization of the employers? A. No.

Q. They were not? A. No.

Q. You investigated the whole industry? A. I investigated the whole industry.

Q. How did you get in? A. We investigated the whole industry, and we had the aid of the Employers' Association at all those factories, and had the labor unions for the other; the labor unions did tremendous work for us.

RHINELANDER WALDO, called as a witness and duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Commissioner Waldo, you were the head of the Fire Department for several years? A. I was head of the Fire Department for a year and a half.

Q. And prior to that you had been a deputy Police Commissioner. A. Yes.

Q. And while you were Fire Commissioner of the City of New York, did you pay particular attention to the safety of employees in factories by reason of fire? A. When I became Fire Commis-

sioner I became impressed with the fact that the City of New York had taken no precaution whatsoever for the prevention of fires. They were spending about \$8,000,000 a year for the extinguishment of fires, but were paying no attention to the other side of it. I had in mind the New England Factory Mutuals Association, which is an organization of all the factories in New England. In the course of thirty or forty years, by the introduction of fire preventative methods, they had reduced their loss about 80 per cent. I therefore believed that the City of New York by the introduction of methods similar to this could accomplish very material results towards lessening the fire losses in this city. The Factory Mutuals in New England started back in about 1830, if I remember rightly.

Q. That is the Association of which Mr. Gray is president?

A. I do not know who is president now. Towards 1865 or so a man named Edward Atkinson of Boston, took up the question in a very scientific manner. He introduced the automatic fire sprinkler, required cleanliness and eliminated dangerous conditions. He reduced the losses about eighty per cent.

Now, I had in mind the idea of adopting methods of the same character in the Department, and for that purpose applied to the Legislature for a bill which would enable us to work along these lines. We know that to-day we can build a fireproof building, especially buildings of steel construction covered with concrete. One of the best examples of a fireproof building is this Asch building fire, where the building was very little damaged, and yet over a hundred persons lost their lives. Therefore, there is something beyond the question of a mere fireproof building.

The first thing to take up is the question of cleanliness in the workshops of tailors, carpenters or other trades that leave highly inflammable clippings or shavings. Clippings and shavings should be collected, and floors kept absolutely clean.

The next thing for us is to get a prompt notice of a fire. Many cases have been known in this city where a fire has burned for several hours confined in a room before it has broken out. These fires could very probably have been stopped if prompt notice had been given. That is best done by a complete system of watch-

men, or by a system of automatic fire-alarm. In this connection, I think, premises not occupied at night should be equipped with an automatic system of fire alarms to give prompt notice of a fire.

The fire having occurred, then comes the question of the escape of the people, and also the question, if possible, of putting out the fire in its incipency. The automatic sprinkler, for example, in a building, will in practically all cases extinguish a fire at its start.

Q. May I interrupt you for a moment? Would you recommend that in buildings above a certain number of stories, and having a certain size, automatic sprinklers be made mandatory? A. I would recommend that they be made mandatory in all buildings where the nature of occupancy, and the number of persons employed there for labor, and where the kind of building might render it necessary. Of course, there are several variable factors there, so you have to leave that question more or less to judgment. In tall buildings where there are few people employed, and where they have ample means of fire-escapes, of course this would not be so important as in the case of the same character of building occupied by tailors and dressmakers, who have large numbers of people employed. That would require a sprinkler system to insure safety.

The next thing is the question of the escape of people. The safety of people cannot be left entirely to the outside fire-escapes. The outside fire-escapes in many cases in New York city are inadequate. The ideal type is that which is called the tower fire-escape. The tower fire-escape consists of an enclosed stairway built in one corner of the building, having no connection whatsoever with the building, and requiring people who want to use it to go out of the building onto a balcony and come in again on the stairway, so the stairway cannot be filled with smoke.

Q. The stairways are inside, independent of the elevator? A. Independent of the elevator.

Q. And the balcony on which they are is outside the building? A. Is outside the building. They have no connection with the building. A man steps out of a building on the balcony and then steps in again to a separate section of the building and to the stairway. In many cases, buildings are so full, and employ so many people, that escapes are not really adequate. In that case the best practice is to have the building divided into fire-

proof compartments by fireproof walls, the openings being as few as possible, and those covered by self-closing doors, the fire itself releasing a fusible metal spring. That is the best means of insuring the safety of people, because people can get away from the fire right into the next room or building and can then go down another stairway. Each one of those compartments should have an independent stairway so as to make it a really independent building.

By Commissioner GOMPERS:

Q. Such as structural bulkhead? A. Structural bulkhead or fireproof wall, with fireproof doors which are released by means of the fire itself burning a fusible metal connection. That is really about the best type of building you can get for the work. Too little attention has been paid in this city to the safety of people. Fire insurance companies have never interested themselves at all in the safety of the people, but have devoted their entire attention to the safety of the building; so that this subject is left to the Legislature.

I wish to call attention in that connection to another thing that I believe this Commission should devote attention to, and that is to over-insurance, especially insurance of personal property. There are many cases where arson has been found to have been caused by over-insurance. A man goes to an insurance company and insures his property for more than it is worth and then has a fire. This has caused many suspicious fires in this city and should be considered. A company should not be allowed to insure goods for more than they are actually worth. It is an encouragement to crime. It is very dangerous.

By Mr. ELKUS:

Q. What else have you to state, Commissioner? A. I think that in any buildings where a large number of people are employed, the adoption of the methods I have suggested, that is to say, precautions against a fire spreading without it being known, precaution to extinguish at its incipency, and the insistence on buildings being of more or less fireproof construction so that it will not burn rapidly, would be desirable.

I would further suggest a proper means of escape by stairways of fireproof construction, or having the building divided into fire-

proof compartments, the latter being really the best means. Many buildings in New York are fireproof, yet the people could not be gotten out within a reasonable time on the present fire-escapes. A fire drill is valuable and should be adopted, but in many cases this would be impractical for the reason that fire-escapes are not large enough for the number of people. I believe that more benefit would come by buildings having fire protection and adequate means of escape rather than in the drill itself. The drill should be a secondary consideration.

By the VICE-CHAIRMAN:

Q. Commissioner, what do you think of the suggestion of giving to the Fire Commissioner the power to close up a factory building when he finds that the owners failed to comply with the requirements of law, similar to that which is now given to the Health Department and the Tenement House Department? A. I think that the Fire Commissioner should have that power. A building may be perfectly safe when employed for one purpose and may become dangerous when employed for another. A man may build a loft building and use it for offices, and it may be perfectly safe, and the next day he may turn the building into a factory employing several thousand people, and it would become unsafe and a menace to life. Therefore the Fire Commissioner should have some authority which he might exercise promptly and allow the owner afterwards to take the matter up in the courts to determine whether or not he had the right to use the building for purposes dangerous to life.

Q. But while a litigation is pending — A. (Interrupting) While the litigation is pending the building should be closed. Provision ought to be made to have litigation of that character proceeded with promptly, in justice to the owner of the building.

By Mr. ELKUS:

Q. Commissioner, in the Fire Department you inspect fire-escapes in factory buildings or make certain inspections with a view of ascertaining that fire-escapes are provided and are proper; that is about all you do, isn't it? A. The Fire Department, under the present law, has no control over fire-escapes; that is, when I

say the present law, I should say the law that was in force when I was in the Fire Department; the Fire Department had no control over fire-escapes. There, all buildings except tenement houses, came under the general supervision of the Borough President: tenement houses came under the supervision of the Tenement House Commission, and factories were controlled under the general supervision of the Borough President, and also under the supervision of the State Factory Inspector.

Q. What had the Fire Department to do with reference to fire-escapes, or with reference to inspecting buildings at all that were used as factories? A. The Fire Department had no control — no obligation to take any cognizance of the lack of fire-escapes on buildings. However, while I was Fire Commissioner, I had an inspection made.

Q. By firemen? A. By firemen through the city, which disclosed a most deplorable state of affairs, the fire-escapes in most all cases were absolutely inadequate—in some cases so inadequate as to be almost criminal.

Q. What did you find as to the absence of fire-escapes when there ought to be some? A. Very prevalent, and where present, they were of such a type and character as to be almost negligible; for instance, in this so-called Asch Building, the fire-escapes there could not have enabled the people to escape in hours.

Q. You mean, it would have taken hours in that case for the fire-escapes to have rendered safety for the people? A. Taking the number of people employed there, and taking the fire-escapes as they existed, it would have taken hours and not minutes.

Q. If they could have got to them? A. If they could have got to them. Outside of that, this building was built in such a way that when the shutter was open, the fire-escape was closed.

Q. That is the iron shutters? A. That is the iron shutters closed in such a way as to close them up if there was a fire.

Q. And when the men and women got out on the balcony they were in a trap? A. They were in a trap.

Q. And unable to be taken down? A. Yes.

Q. Will you please tell me what the duties of the Fire Marshal are? A. The Fire Marshal is a criminal investigator; he investigates a fire for the purpose of determining if any criminality is

attached, and bringing to justice any offenders who may have committed a crime.

Q. What records does he keep? A. He keeps a record of all fires and their origin, as far as they can be ascertained, the actual nature of the fire and the damage, etc.

Q. Commissioner, what is your opinion with reference to endeavoring to educate both employers and employees with reference both to the prevention of fire and escape in case of fire, by means of either documentary methods or by means of lectures, illustrated lectures? A. I do not think that this is the solution of the problem. I think the solution of the problem is to prevent a fire, and to give to a man such method of escape so that he may escape without difficulty. I do not think you can place much reliance on drills, because you are apt to find in the danger and excitement the system goes to pieces. I do not think it is possible for men and women, in a moment of excitement, to disregard danger.

Q. Then by prevention do you mean, from what you said, that the principal means of prevention is the enforced cleanliness? How about smoking? A. Smoking is one of the things you cannot prohibit. If you have cleanliness you eliminate the danger of smoking.

Q. In department stores, I understand, in the city of New York, it is a rule which is enforced that no employee may carry a match into a building. A. Well, they may have a rule, but it would be impossible to enforce.

Q. Well, I was told by the head of one of the department stores last night, that they never had any trouble with their employees, who number thousands, in smoking in the building. A. They may prohibit their employees from smoking, but in many establishments you will find that they do smoke.

Q. They do it anyway? A. They do it anyway.

Q. But you believe that in cases where the floors have been kept clean and regularly swept up several times a day, and rubbish put in fireproof receptacles, a great proportion of dangerous fires would be eliminated? A. And also the introduction of fire sprinklers which would put a fire out at its incipency.

Q. An automatic fire sprinkler system? A. Yes. Another suggestion in working out this question is the question of waste, which should also be kept in fireproof receptacles, as should anything that

may cause a fire. In chemical warehouses, chemicals which combining together will cause a fire, should be kept apart, or in such a way that they cannot combine.

Q. How about the Fire Department or some other department issuing instructions what to do in case of fire, or what means to use to escape when a building is on fire? Should an owner or lessee of a building be required to issue printed instructions to its employees what to do in case of fire, how to escape? A. I think that the most you could hope to gain along these lines would be the issuance of diagrams similar to those now used in the theatre program.

Q. Showing all the exits? A. Showing all the exits.

Q. And then designate the exits by paint, red paint? A. By some color or some sign, and also to have the exits, when they are used, lead to somewheres where a man can get out. Many of the exits now lead to wells, and to have a man come down into the end of a shaft would not put him in any better position than he was when he started.

Q. He would be in a blind alley, a trap? A. He would be in a blind alley, or some place where he could not get out.

Q. Now that leads to this question. Would it be, in your opinion, advisable that even before the plans of a building are approved finally, they should be submitted to the Fire Department to pass upon the adequacy of the fire-escapes? A. I believe they most assuredly should.

Q. You think that would not lead to too much delay? A. Not necessarily.

Q. You mean that a duplicate of them could be submitted? A. Or there might be a representative of the Fire Department in the Building Department to go over them at the same time.

Q. Or some person in the Building Department could be equipped, I suppose, on the subject with sufficient knowledge to pass upon the fire-escapes? A. I think it would be best to have a representative of the Fire Department there.

Q. In the Building Department? A. Yes.

Q. And his signature of approval would be required before the plans would be authorized? A. Exactly.

Q. Now, Commissioner, there has been considerable discussion here on the part of the Labor Department and others, which show that according to the Labor Department's representative, that the

inspection of the buildings is divided among three or four different departments, and, therefore, the responsibility is divided. A. That is the case.

Q. What is your opinion as to some centralized bureau to be created for that purpose to cover the State, and with a Commissioner, a superintendent of inspection with headquarters in New York city, and one for the rest of the State? A. I think it would be a very desirable enactment.

Q. Some kind of an adequate inspection department that would cover the ground? A. Yes, sir.

Q. You would approve of such a thing? A. Yes, I certainly would.

By the VICE-CHAIRMAN:

Q. Commissioner, there was a suggestion made yesterday that it would be a good idea to link loft buildings together by bridges in the rear. What do you think of that? A. Where it can be done, the idea is good, but usually not practicable.

Q. On account of the distance apart? A. On account of the distance apart, and on account of the question of protection of one building from the other, and so forth. It is not, as a rule, a practical suggestion, but if the building itself is divided by fireproof bulkheads, even a narrow building, take a 25-foot loft building, or a 50 foot loft building that goes through the center as they do in many cases to-day, where two houses are divided.

Q. (Interrupting) Across the middle? A. Across the middle, I should say, by a fireproof wall, and that have such as I describe, a stairway at each end — that alone should be sufficient protection.

Q. Would not, after all, a sprinkler system be about the best method of preventing fire? A. The sprinkler system is one of the best methods of preventing fire, but aside from that, in all cases where a fire occurs there should be some means of escape. The question of the safety of human life should be first, above the monetary consideration.

By Commissioner GOMPERS:

Q. The sprinkler system would be a protection during the time when the employee would not be at the establishment? A. The sprinkler system is a protection at all times.

Q. Yes, but I refer to a fire — it would be easily discovered, or very readily be discovered during the day when the employees were there in the establishment? A. The sprinkler system, by a jet of water right on the fire where it starts, renders it impossible for the fire to progress. If the Asch Building had been equipped with a fire sprinkler system, probably there would have been no loss of life.

Q. Speaking of this sprinkler system, is the entire system safeguarded by patents and in the hands of a limited number of persons? A. No, there is nothing in it that can be patented. It consists merely of a pipe with faucets.

By Mr. ELKUS:

Q. It is patented, isn't it? A. There are ten or twelve systems of it. Anybody can design a system.

Q. Have you ever heard, Commissioner, that there was a trust in the sprinkler systems? A. I have heard of trusts, but there are many systems, and the fact also remains that you can make one yourself.

Q. Have you ever been informed that there was some kind of a gentleman's understanding among the various sprinkler systems to keep up the price? A. I have never gone into it at all, because the first fact I got to was that anybody could make one. Whether the existing manufacturers have an understanding or not seems to me to lose all force from the fact that any plumber can make one. The only thing patented is the sprinkler head.

Q. That is patented? A. They are all patented, and you can go out and get another patent on one. It simply consists of a faucet covered with a plug, which is held in place by a spring which is in turn kept in place by a piece of fusible metal. The minute that fusible metal melts, the springs releases and the cap falls off and discharges the water either against a plate to distribute it or against the ceiling. Anybody can design one.

By the VICE-CHAIRMAN:

Q. Must the fire really touch the fuse or will the heat melt it? A. The fires does not have to touch the fuse. It melts at quite

a low temperature, I forget the exact temperature, but they get it down very low now.

By Commissioner GOMPERS:

Q. At least it has been testified here, 150 degrees Fahr. A. I think they can get it down to that point; of course, it depends on the metal used.

By Mr. ELKUS:

Q. With reference to these sprinklers, has it come to your knowledge, or did it come to your knowledge when you were Commissioner, that the insurance companies recommended certain sprinklers to be put in a building, and if they were not put in they would not reduce the rates of insurance? A. When I was Fire Commissioner I never paid any attention to the insurance companies. I found that they did not take any interest in the protection of human life, and after all, that was what we were most interested in.

I would insist upon the building being equipped with a system which would protect life, regardless of any other consideration. All the insurance company cares about is to have a man comply with their laws.

By Commissioner DREIER:

Q. What would you do to insure safety of life in these blocks along West Broadway and Wooster Street where they are old buildings, and where they come up close, within a few feet in the back, and a fire-escape runs down to a blind alley? What would you do to remedy such conditions? A. In the first place, people should not be allowed to work in a building where the conditions are dangerous. These people should also be required to put in proper escapes or stop using their buildings for factory purposes. Much might further be accomplished along the lines of safety by sprinklers and proper fire-escapes. In some cases they might have to use a better type of building for factory purposes.

Q. Then I would like to know about putting fireproof walls in present buildings; could that be done? A. Yes, in a good building it could be done.

Q. It could be done? A. The building ought to be, though, of a good type of construction. It should only be permitted in a building of a good type of construction. A building which by its structural character is unfitted for manufacturing purposes, should not be allowed to be used for that purpose.

By the VICE-CHAIRMAN:

Q. What about old-fashioned buildings with wooden beams, could nothing be done there? A. A sprinkler system would do a good deal, with the introduction of balcony fire-escapes.

Q. These fire-escapes you spoke of, are they established in a lot of buildings satisfactorily? A. A building or property not adopting them should be limited in the number of people they employ on a floor. I believe any building liable to fire should limit the number of people employed on a floor. If a building is owned by a man and he does not want to put in proper fire-escapes, then I think he should be limited in the use to which it is to be put.

By Mr. ELKUS:

Q. Are you familiar, Commissioner, with the provisions of the Sullivan-Hoey bill? A. I am in a general way. It was passed after I left the Department, so I did not read all of its provisions, but in a general way I am familiar with it.

Q. Would you like to say anything to the Commissioner with reference to that bill? A. As I recollect the bill, I read it before it was enacted; I do not know what modifications were made to it since, but as I read the original draft, I believe the bill to be an excellent one.

Q. But you do not know how it has been changed? A. I do not know how it has been changed.

Q. Now, are you familiar with the number of buildings that have been erected in the last ten years, west of Fifth Avenue and between 8th and 23rd and 34th Streets; are you familiar with those buildings? A. Yes.

Q. They are ten and twelve, and sometimes sixteen stories high? A. Yes, sir.

Q. What observations have you to make with reference to those buildings as now erected as to fire? A. That those buildings should

be divided by some kind of a fireproof wall where people could get from one side to the other and have time to get out. If one side was on fire they could get to the other side of it and be cut off absolutely from the part that was burning. These buildings are a great menace as they stand to-day.

Q. They are. You think they should have a sprinkler system and fire walls? A. Some kind of proper fire-escape that could be made safe; that could be made practically safe.

Q. And also, if rules as to cleanliness are observed? A. Also that.

Mr. ELKUS: Have the Commissioners any other questions?

By Commissioner GOMPERS:

Q. It has been generally admitted by the gentlemen who have testified before this Commission, that there is considerable division of responsibility in the enforcement of existing law for buildings and fire, safety of life and property, etc. The question was asked one of the witnesses, who expressed his belief that if a conference was held, either annually or semi-annually in New York or any other city of the State where the representatives of the executives of the various departments in cities of the first and second class, together with the Commissioner of the Department of Labor, the Police Commissioner, the Fire Commissioner, the Fire Chief, the Commissioner of the Building Department, or the Health Department, etc., for the purpose of comparing notes and having discussions; and perhaps formulating propositions for further legislation for the protection of life and property and sanitation, that it might be a good idea. What is your opinion of it, generally, as expressed? A. Of the idea of such a conference?

Q. Yes, sir. A. I think it is a good one, but I think this Commission right here could bring before the Legislature a bill which would rectify existing conditions and make them as they should be without any further conferences, by giving its time, as I take it they are doing, to this subject, and I think they ought to put it in such a form that the legislature could pass a bill which would protect life.

Mr. ELKUS: Thank you very much, Commissioner. I would like to ask the Commission to remain a little longer, as I have two witnesses who are short.

Commissioner GOMPERS: The Commission is perfectly satisfied.

Mr. ELKUS: I will be as brief as I can.

BENJAMIN C. MARSH, a witness called by the Commission, being duly sworn, testified as follows:

By Mr. ELKUS:

Q. Mr. Marsh, you represent the Commission on Congestion?

A. Yes, but I am speaking to-day entirely in a private capacity, however.

Q. You desire to address the Committee for a few moments upon some bill? A. Yes, and with reference to some methods of safeguarding conditions in factories, if I may.

Q. Now, will you be as brief as you can, because the Commissioners are sitting over their time. I know you have been here waiting to be heard, but I have got two other witnesses I want to hear this afternoon. A. We have been able to visit only about 100 factories approximately in upper and lower Manhattan and in the western part of Brooklyn. Most of the recommendations I want to make are those which are made by the officials of the city Commission on Congestion, the publication of which I have brought with me at their request.

Q. What are their recommendations? A. There are many figures there as to the conditions found by the Congestion Commission. Among their recommendations was one which they thought should be put into operation immediately for reasons which I will outline very briefly. First, that although many safeguards could be made as to factories' conditions, nevertheless there is very great safeguarding in factories by a bill we introduced at the present session of the legislature, or the session of the legislature that has just closed, to carry out the Commission's recommendations. The present allowance of 250 cubic feet in factories, we think, should be made 500 cubic feet in factories. After consultations with

members of the Legislature and with the Commissioner of Labor, that was reduced to 350, because they thought they could not enlarge it immediately.

Chicago requires the provision of 500 cubic feet for every employee in the factory during the working day in the daytime, and the reason for the immediate enactment of this is the fact that although you will ultimately get in your partition walls, it will take several years to do it properly. In many factories a less allowance is made than even 250 cubic feet. For instance, in such a factory as we visited on the East Side a few weeks ago, the only means of entrance and egress is the fire-escape. There are no outside fire-escapes, and no elevators, and, of course, it is regular square fire-escapes, so people can get out and get in.

The time I was in they were just under the required limit of 250 cubic feet in one of the floors, but they admitted they were not working full capacity at that time.

On the other hand, even if you get sprinklers or fire-escapes, or elevator service, it is very doubtful — or very probable, if I may put it in this way — that the people who are working in the factories will get scared, and you cannot get them out safely if they are struck with panic; and, as the hygienists testified before the Congestion Commission, 500 cubic feet of air space is necessary for sufficient ventilation.

I believe the ventilation bill was also defeated at the present session of the legislature, and it will take five, if not ten years, to get adequate ventilation in the factories, I am informed. I will not go into the reasons why the bill was not enacted, only to express the strong hope that this Commission will recommend that we provide 500 cubic feet; if necessary that this be done by gradual steps — 350 feet next year or 400, and a larger number the following year or two years after that, so that ultimately we will have the adequate provision of 500 cubic feet of air space during the working day — that is the day itself, and a larger amount at night, as required in the present law.

The second recommendation is that fireproof stairways should be provided.

The third one was also one recommended in this city by the Commission on Congestion, that every building over four stories

or 50 feet, to be occupied as a factory, loft, warehouse, or other miscellaneous building be of fireproof construction.

The fourth recommendation of the Congestion Commission bearing on your deliberations is that there should be at the rear of every factory or loft hereafter erected, a yard from the ground up, across the entire width, the yard to be at least ten feet in depth and always ten per cent of the depth of the lot—if it is 120 feet deep, 12 feet wide.

Then there seems to be no reason why you should complicate the problem, as in Manhattan, by constructing twenty or twenty-three story loft buildings. Chicago has limited buildings to 200 feet. The mayor's first Building Code Revision Commission has recommended a limitation to a cubage of 174 times the area of the lot. That is, approximately, 176 feet, and some of the factory and loft buildings are 250 feet, approximately—from 200 to 250 feet.

The Commission recommends, and I second the recommendation—that the heights of factories in the outlying boroughs be limited, because I take it you are concerned with the future construction of factories as well as the effort to remove some of the dangers existing to-day in Manhattan and the other boroughs.

Finally, I would suggest—you will inform me, Mr. Chairman, if I misunderstand the scope of your investigation. I think you are taking in working conditions as well as fire precaution and fire dangers?

Q. Oh, yes. A. We would recommend that New York city should do as is done in Vienna, and several German cities, Dusseldorf and Munich, prohibit absolutely the location of factories in certain sections where their presence is a menace to the entire community. I want to submit one recommendation——

Commissioner GOMPERS: Before you leave that, what character of industries have you in mind in regard to such a recommendation?

The WITNESS: Well, I would recommend that no more factories, for instance, be permitted in sections where land values

are so great that you have got to have overcrowding, or at least factories which are a nuisance. In Vienna, you cannot locate any kind of factory in certain districts.

Commissioner GOMPERS: That is for economic reasons?

The WITNESS: For economic reasons, for the welfare of the workman.

Q. Would any statute that created any such distinction be constitutional? A. I do not know. If not, then the Constitution ought to be amended, because it is against the human constitution to have such conditions as exist in New York today.

Q. We are authorized to suggest remedial legislation, but not the amendment of the Constitution. A. Then you are crippled in the necessary carrying out of prevention of fire hazards, probably, in many respects. You want suggestions as to what seems to be a feasible way, and if you care, I will submit the building regulations of the foreign cities.

Q. We will be very glad to have them. A. I would like, since you are taking up the question of wages, to make another recommendation of the Congestion Commission.

Q. We have not anything to do with wages. A. Pardon me; I heard one reference to a minimum wage.

Q. The lady spoke about it, but we cannot suggest anything about that, I take it.

Commissioner GOMPERS: I take it that the Commission will consider it, as to its scope, when the question arises.

The WITNESS: May I submit a recommendation?

Q. Surely.

Commissioner GOMPERS: I don't think we will object to your making a recommendation to the Commission. Of course you will kindly be brief.

The WITNESS: It is the creation of an Industrial Commission for New York city, composed of three persons, one to be nominated

by the Employers' Association of the city, one by the labor unions of the city, and one by the mayor; and all to be appointed by the mayor, which will investigate labor conditions and wages.

Q. That is what is known as the New Zealand method, isn't it?

A. A municipal commission. I think it is followed in German cities. New Zealand has a State Committee of Mediation and Arbitration, but recognizing the problems in New York city, the Commission recommended a local commission, which would be on the job all the time, stopping the warfare which is continually going on.

Commissioner GOMPERS: That is not only a proposition of wages ———

The WITNESS: For all conditions.

Commissioner GOMPERS: It interjects another proposition which is highly controversial in character.

Q. We have not anything to do with that. A. It is not compulsory arbitration at all. This was one recommended and endorsed by a number of labor unions and others.

Commissioner GOMPERS: And attacked by nearly everybody else. I do not think it would be profitable just now.

The WITNESS: I must dissent from that statement, Mr. Chairman.

Commissioner GOMPERS: And I reiterate it.

The WITNESS: The eighth recommendation is this: you are, of course, requiring the manufacturer to go to a good deal of expense in making his conditions of manufacturing safer. For instance, a tower, a fire tower, has been suggested. That would mean, if a man puts up a \$5,000 fire tower, under your present system of taxation, you punish him for safeguarding his employees by a tax of about \$80 a year; and suppose you require that he had 500 cubic feet, that is nearly 50 per cent additional to the amount of

rent he will have to pay. Again, you punish the manufacturer for the benefit of the landowner, and because of the direct relation of this problem, which was recognized by the Congestion Commission, I feel that it would be incumbent that you recommend the reduction of the tax rate on buildings and some economic encouragement to the man who is required to safeguard his employees.

Q. In other words, if a man was required to do these things he ought to have a reduction of his taxes? A. A uniform lower rate of taxation on buildings, otherwise you simply make him pay more for the benefit of the landowner.

- Those are the main points which I would like to submit, with a copy of this bill, Mr. Chairman.

AARON GOLDBERG, called as a witness and being duly sworn,
testified as follows:

By Mr. ELKUS:

Q. What is your business? A. Human hair manufacturer.

Q. Where is your place of business? A. 48-58 Mangin Street.

Q. That is at the corner of what street? A. Delancey.

Q. How long have you been in business there? A. Two years.

Q. How many people do you employ? A. At present, about thirty-five.

Q. Thirty-five people? A. Yes.

Q. Men and women? A. Yes.

Q. Are you working now full or half the usual force? A. About full.

Q. About full? A. Yes.

Q. How large a place have you got for your business — how large is your factory? A. Fifty by 100.

Q. You have one loft, 50 by 100? A. Yes.

Q. Do you occupy the whole loft? A. Yes.

Q. And is it divided up into an office or anything? A. Just a little space for an office.

Q. A little space for an office? A. Yes.

Q. What do you make human hair out of? A. Out of Italian hair, German hair and Chinese hair.

Q. That is, this hair is shipped to you from Italy, from Germany and from China? A. Yes.

Q. And when it gets into your place has it a powder on it to preserve it? A. Well, it has been disinfected before it comes in, and it has nothing else on.

Q. Nothing else on but what? A. Except it might have a little dye on it.

Q. Have you got any toilets in your place? A. Four.

Q. When was your place last inspected by the Labor Department? A. About two weeks ago.

Q. Was that by Miss O'Reilly? A. Yes.

Q. That is the inspection you mean? A. Yes.

Q. Was it ever inspected before that? A. Yes; about two months ago, I believe.

Q. Two months ago? A. Yes.

Q. By a factory inspector? A. Yes.

Q. He went all through it? A. Yes.

Q. Were the conditions as they were when Miss O'Reilly examined it about two weeks ago, or a week ago, the same as they were when the inspector examined the factory? A. Yes.

Q. Have not changed any? A. No.

Q. The condition of the floor was just the same? A. Yes.

Q. How often do you clean your place? A. Every day.

Q. Do you mean to say that the hair and other material on the floor is the result of one day's work? A. Yes, sir.

Q. It gets as dirty as that every day? A. Yes; we sweep twice a day, in fact.

Q. Sweep twice a day? A. Cannot keep it clean.

Q. How about the condition of the fire-escapes? A. They are all clean. We have two doors going out.

Q. Did you read Miss O'Reilly's testimony about her examination of your place? A. No.

Q. You did not read it? A. No.

Q. You have an open fire, in a corner, have you, a coal fire? A. Yes.

Q. What do you burn on that fire — what do you use it for? A. We have — there is an asbestos drying room with tin inside, and we dry the hair there.

Q. Do the men and women eat their lunch in this room? A. No.

Q. Where do they eat? A. They all go home; they live right near, except one or two.

Q. Is not there a pile of stuff on the floor, dirt and powder all piled up — you did not see that? A. No. There was probably a bag of dirt carried out every afternoon.

Q. Is there a dressing room there? A. Yes.

Q. Where was it? A. In a corner.

Q. Did Miss O'Reilly see it? A. Yes.

Q. Are the dyes boiled there in kettles over this fire? A. No; it is merely to dry.

Q. What do you do there with this hair as it comes in from the foreign countries? A. It is according to what —

Q. What do you make out of it? A. According to what countries. If it comes from China we disinfect it again, clean it.

Q. What do you disinfect it with? A. Muriatic acid, soda, ammonia.

Q. A solution of that? A. Yes, sir.

Q. That you wash the hair with? A. It is washed in probably fifteen waters.

Q. The Chinese hair? A. Then it is bleached and washed again, and washed again, and dyed, and washed again.

Q. Then what else happens to it? A. Then the people work at it, dry it out, and people work at it.

Q. What do they do with it — make it into wigs? A. First they straighten it out by the men, then it goes over to the girls, and they make coronets and pompadours and wigs.

Q. And if it is not Chinese hair it is not disinfected again? A. If it is not Chinese hair it is not disinfected.

Q. Is it just made up without further disinfection? A. Oh, yes, it is washed.

Q. Is there an odor from these kettles where the dyes are boiled or mixed? A. No.

Q. No odor? A. No.

Q. When do your people begin work, and when do they stop? A. Eight o'clock in the morning.

Q. When do they stop? A. Six o'clock.

Q. Do you employ girls and boys or girls and men? A. Girls and men.

Q. Any girls under sixteen years of age? A. Yes; I guess about one or two.

Q. Any under fourteen? A. No, sir.

Commissioner GOMPERS: You were asked by counsel whether there is any odor out of this muriatic acids and ammonia; is it possible to have these acids and ammonia without having an odor, a smell?

The WITNESS: Well, of course, there is a smell. I do not know what you mean by odor.

Q. There is a smell? A. Yes.

Q. There is a smell from the hair itself, isn't there? A. There is no smell.

Q. Isn't there a powder in the hair in which it is packed which is in the air all the time? A. No, sir.

Q. Did not Miss O'Reilly see it there and call your attention to it? A. I do not know what she did.

Q. Did not she call your attention to the toilets and show you they were dirty? A. They were not dirty.

The VICE-CHAIRMAN: What is this white powder? A little while ago you said it was a disinfectant. What is it?

The WITNESS. I never mentioned white powder.

The CHAIRMAN: Counsel asked you at the beginning of your testimony what the white powder was, and you said it was a disinfectant.

Q. Yes; you said they came in a powder because they were disinfected before they got here. A. No; there might be a dye on the hair.

Q. On the hair? A. Yes; from China, but I do not see any powder, but when they come, the hair, we unpack them from the case, when they come from China; we see a little like dust on it; there is no powder.

Q. That dust when you take out the hair goods fills the air, the room is full? A. No, we clean it right away with muriatic acid.

Q. You don't mean you clean it off the hair? A. We put it in the tubs.

Q. When you take it out of the boxes does it not circulate in the air? A. No, sir, because there is not so much dye.

Commissioner GOMPERS: Have you got a ventilating fan of any kind in the factory?

The WITNESS: No; we have about eighteen windows.

Commissioner DREIER: Would a ventilating fan help when you shake out the hair?

The WITNESS: We don't shake it.

Commissioner DREIER: Whatever they were doing, is not there any way of protecting the person who does that thing from getting all that stuff?

The WITNESS: No.

Commissioner DREIER: You don't know of any way?

The WITNESS: No.

Q. How long have you been in business, Mr. Goldberg? A. Seven years.

Q. How old are you? A. Twenty-five.

Q. Been in business for yourself seven years? A. No; been in business myself, in the human hair business five years.

Q. In the same place? A. 195 Bowery.

Q. Before that? A. Yes.

The VICE-CHAIRMAN: What was the character of the dirt in the bag?

The WITNESS: Papers, you know, gathered up from the floor, swept up. A man takes it every afternoon, comes up for it, because there is no way of putting it in the hall. It has to set inside and be taken downstairs. The boys take it out of the bag to the street.

The VICE-CHAIRMAN: Where do you prepare the dyes?

The WITNESS: We have a little room.

Commissioner GOMPERS: In that same loft?

The WITNESS: Yes.

The VICE-CHAIRMAN: That is not all one room then?

The WITNESS: It is one room, just only a few boards, a little wall.

The VICE-CHAIRMAN: What is the wall built of?

The WITNESS: A few boards.

The VICE-CHAIRMAN: Does it run from ceiling to floor?

The WITNESS: Just about five feet.

The VICE-CHAIRMAN: Is there a smell that comes from the dye stuff?

The WITNESS: There is no smell from dyeing.

Q. Do you mean to say that a dye has no smell at all with muriatic acid in it? A. There is no muriatic acid in the dye.

Q. What is in the dye? A. Well, I don't know what it is; it is dye.

Q. You boil this dye? A. Yes; but there is a window right there that draws it right out.

Q. Boil it over the open fire? A. Yes.

Q. The pot has no cover? A. It has a cover; the air takes it right out.

Commissioner GOMPERS: This disinfectant consists of muriatic acid, ammonia and what else?

The WITNESS: Washing soda.

Commissioner GOMPERS: The disinfection of the hair, the operation is on that same loft, isn't it?

The WITNESS: Yes; it is about twenty five feet away from the people, where they work.

Commissioner GOMPERS: But in the same room?

The WITNESS: Yes.

Commissioner GOMPERS: And in the same loft?

The WITNESS: Yes.

Commissioner GOMPERS: And isn't there considerable smell?

The WITNESS: No smell whatever.

Commission GOMPERS: With muriatic acid?

The WITNESS: No smell at all unless you go near it.

Commissioner GOMPERS: Well, of course, the nearer you get to it, the surer you are there is a smell.

The WITNESS: They disinfect this near the windows, and our windows are wider than these here.

Q. Are they always open? A. Always open.

Q. In cold weather? A. In cold weather.

Q. Never close them up? A. We have plenty of stoves in there.

Q. Do you mean to tell the Commission you do not close these windows in the coldest weather? A. Coldest weather; no, sir.

Commissioner DREIER: You mean the windows above the boilers?

The WITNESS: All of them.

Q. All the windows are wide open? A. Not wide open when it is very cold, but they are open all the time.

Q. You mean all your eighteen windows are open partially all the time in all weather? A. Except two where the doors are, fire-escapes; they are not open.

Q. Those two are closed where the fire-escapes are? A. Not locked, but just merely closed.

The VICE-CHAIRMAN: The pots you will boil the dye in are over in the corner with a ——

The WITNESS: (Interrupting) Right outside near the window.

The VICE-CHAIRMAN: With a few boards around it that do not go all the way to the ceiling?

The WITNESS: No.

The VICE-CHAIRMAN: And the window carries off the smell?

The WITNESS: Yes.

The VICE-CHAIRMAN: What happens when the wind is coming in the window —— Never comes in?

The WITNESS: Never comes in.

The VICE-CHAIRMAN: The wind never blows that way?

The WITNESS: Not on the other way in, because it is a corner; it is a corner window and draws it right out. If the wind blows this way it goes out the other way; either way the wind blows it blows right out.

SAMUEL SHAPIRO, called as a witness and being sworn,
testified as follows:

By Mr. ELKUS:

Q. What is your name? A. Samuel Shapiro.

Q. And your business is what? A. Candy manufacturer.

Q. Where is your place of business? A. 48 and 50 Mangin Street.

Q. That is in the same building with the last witness? A. Yes; corner of Delancey.

Q. And you are two lofts below his? A. I have got a loft.

Q. What floor is it on? A. Three lofts above his.

Q. What floor is it on? A. On the 8th, seven flights up.

Q. And you manufacture candy there? A. Yes.

Q. How long have you been there? A. It is going to be a year in February.

Q. Where were you before that? A. 297 Cherry Street.

Q. How many people do you employ there in manufacturing candy? A. From ten to fifteen.

Q. Girls or men? A. About ten girls and two men. Always two men, and girls sometimes more and sometimes less.

Q. Now, Mr. Shapiro, what do you do with your candy, sell it? A. Yes, sir.

Q. Where do you sell it, on the East Side, in the neighborhood or what? A. In the city, and some out of town.

Q. Sell it to retailers? A. Wholesalers only.

Q. You are a wholesaler? A. I sell to wholesalers only.

Q. And they in turn sell to candy stores? A. To the retailers.

Q. What kind of candy do you manufacture? A. Jelly goods and chocolates, jelly goods dipped in chocolate.

Q. Now, this dipping in chocolate is done by a girl, isn't it? A. Yes, sir.

Q. And she does it with her hands? A. Yes, sir.

Q. She takes the jelly in her hands and dips it in the bowl of chocolate and moves it around? A. The chocolate is placed on a big marble. The girls are sitting there. They take the jelly in their hands and dip it.

Q. Is your loft divided off by partitions or is it all open space?

A. What do you mean, it is divided by ——

Q. Yes; is it divided by a wall? A. By a wall; yes.

Q. How is it divided—have you got an office there? A. I have got in the corner an office and store.

Q. An office and storeroom, or stockroom and the rest of it is all open? A. All open, yes.

Q. That is where the girls and the men are? A. Yes.

Q. Do they eat their meals there at lunch time? A. Some of them are going down and a couple of them are eating upstairs.

Q. That is they eat right where they work? A. Some of them.

Q. Are the toilets in the same part of the building? A. On one side of the building.

Q. In an open space? A. No; there is a partition for the toilets.

Q. You mean there is a partition around each toilet? A. (Interrupting) No.

Q. But the door to the toilet opens right into the place where they make the candy? A. No. The door opens right in the partition; after you pass the partition you go in the room. The partition is where the storeroom is.

Q. The toilets are next to the storeroom and office? A. Yes; and then there is a partition.

Q. It is right adjoining the place where the candy is made? A. Yes.

Q. Where is the sink? A. The sink is in the shop where they work.

Q. They wash their hands when they walk to the place where the candy is made? A. The candy is made farther up.

Q. I mean there is no partition between them? A. No.

Q. Is there any dressing room? A. Yes.

Q. Where is that? A. Near the window.

Q. Is it partitioned off? A. Yes.

Q. Or is it a curtain? A. Partitioned off.

Q. Wooden partition? A. Yes.

Q. How large is it? A. It is about ten feet square.

Q. Ten feet square? A. Yes, sir.

Q. Anything else in it but the dressing room? Is it used for anything else? A. Used for nothing else.

Q. And that opens right into the candy place? A. Yes, sir.

Q. Where the candy is made? A. Yes.

Q. Is there a door to it? A. Yes.

Q. Now, Mr. Shapiro, when were you last inspected by the Factory Department? A. About two weeks ago.

Q. That is this inspection by Miss O'Reilly? A. Two days before Miss O'Reilly.

Q. Two days before she was there? A. One or two days.

Q. What was the name of the inspector? A. He signed his name there, I do not know.

Q. Were the conditions the same when this inspector of the Factory Department was there as they were when Miss O'Reilly came two days later — you had not changed any? A. About the same.

Q. I mean it was just as clean or just as dirty as it was? A. I mean it — well, it was — I don't remember the day when Miss O'Reilly was there. I think it was Monday, and Saturday we clean up all the place — and every place — I think he was there Monday.

Q. You clean up every Saturday, do you? A. Saturday it is cleaned in a general way, and it is cleaned every evening, everything is cleaned up — not as on Saturday. Saturday it is all washed.

Q. Once a week you wash it? A. Yes, and every evening we clean the floor, scrub it, and take off the jelly because that sticks, is sticky.

Q. All during the day it is sticky? A. Yes; and evenings we clean it up.

Q. How do you clean it, with soap and water or just sweep it? A. Every day it is scrubbed with a scraper, and sweep it out. Saturdays we wash it all off with hot water and sawdust.

Q. You mean, during the day, if a person walks in there he feels the stuff on the ground? A. Might get some jelly.

Q. Candy and jelly on the ground, and you can notice — The candy is boiled there, isn't it, over an open fire? A. Yes.

Q. That fire is where, out close to the toilets? A. That fire is forty-five feet away.

Q. Forty-five feet from the toilet. And the jelly that is boiled in these pots bubbles over on the outside of the pot? A. No; never comes over, the pot is so big, and it is cooked so little it would not boil over.

Q. As you walk in there you notice every day after an hour or so that the floor is covered with this jelly stuff, don't you? A. No.

Q. Don't your feet strike it? A. No.

Q. You say every evening it is scraped off? A. Yes.

Q. Where does it come from? A. The girls when they work drop some jellies on the floor, and it is so soft, if you step on it it gets smashed.

Q. You say it just comes from the girls working on the tables? A. Yes; they cut it with knives, and water gets down there.

Q. And paper and other things and dirt, so that after a couple of hours this floor is dirty with jelly and paper and water? A. Not all of it; sometimes it is a little dirty in the place where they work.

Q. Well, they work all over it, don't they? A. No; they only work in some places.

Q. Are not their tables all over the open space outside of the stockrooms? A. Yes.

Q. The tables are there where they work; well, isn't there some way of stopping this dirt from getting on the floor? A. There is no way of stopping it.

Q. How often do you have the toilets cleaned? A. The toilets are cleaned — they are always clean, but on Saturday we wash them.

Q. Do you wash them any other day but Saturday — once a week you wash all the place, on Saturday? A. Yes.

Q. How about the girls themselves, are their dresses all full of jelly and candy? A. No; they wear aprons; in the evening they take them off.

Q. Are the aprons full? A. Well, the dippers, they get sometimes some chocolate on the clothes.

Q. That is the girls who use their hands? A. Yes, sir.

Q. They take the jelly in their hands and put chocolate on by dipping it in there? A. Yes.

Q. Do they wash their hands every day? A. Several times during the day, when they get up they wash their hands, they have to.

Q. Because they are full of chocolate? A. Yes.

Q. But I mean when they come in the morning, do they wash then — that is, I mean before they go to to work? A. Before they start to work.

Q. Do you see them wash them? A. Yes, sir.

Q. Do you supply the soap? A. Soap, I am supplied by a towel supply company. Every Wednesday they bring soap and towels.

Q. Once a week you get towels and soap? A. Yes, sir.

Q. And that lasts for a week? A. Yes, sir.

Q. For how many girls? A. There are ten girls.

Q. How many towels are brought every Wednesday? A. Eight.

Q. Eight towels for ten girls for a week? A. Yes, sir.

Q. And this candy that these girls put the chocolate on with their hands, that is sold to men and women and children to eat, isn't it? A. Yes, sir.

Commissioner DREIER: Do you require the girls to wash their hands after they leave the toilet before they go back to work on the candy?

The WITNESS: They do.

Commissioner DREIER: But you have made no requirement? You have never instructed them that that should be done?

The WITNESS: I guess they always wash their hands.

Commissioner DREIER: I want to ask whether you consider those toilets clean.

The WITNESS: Well, that was the middle of the week altogether, and we clean them Saturdays — they were cleaned.

By Mr. ELKUS:

Q. You mean that they came in the middle of the week, and if they had waited till Saturday it would have been clean? A. It was clean. The water was working there all right.

Q. I know, but the place was dirty outside? A. Not on the floor. They get their shoes with jelly and go in there.

Q. They carry the dirt and jelly from the floor into the toilet and it stayed there until Saturday?

No response.

By Commissioner GOMPERS

Q. Of course, you understand that it is a delicacy, particularly which girls and children partake of. Do you mean that if such conditions were known to exist, people would be encouraged to eat candy made under such circumstances? A. It is dipped with the hands on marble; that's the way they make chocolates all over the country—with their hands, just the same as they work in my place and the biggest houses in the city.

By Mr. ELKUS:

Q. How long have you been in the business? A. I am three years in candy business.

Q. What business were you in before? A. I worked in another business.

Q. Where did you work? A. I worked for the Bethlehem Steel works.

Q. At Bethlehem, Pennsylvania? A. Yes.

Q. How long have you been in this country? A. Eleven years.

Q. Did you ever hear of their wearing gloves, rubber gloves in the first-class candy factories? A. I got girls which they work in the first-class candy factories. I pay them \$11 a week where they were getting \$8 in other places and they use the same thing in my place what they did in other places. They can't learn in my place. I only get them out of big houses.

Q. Where did you learn the trade of candy manufacturing? A. I was in with a partner and he was a candy maker for twenty-five years.

Q. That is where you learned it? A. Yes.

Q. What do you consider the best factory for making candy in the city? A. Henry Heidig; I got two girls from there.

Q. Did you ever hear of Huyler's factory? A. Yes; I think I got a girl from Huyler's. I got one from Park & Tilford's.

Q. Don't you know that in all of those factories the girls use rubber gloves? A. They don't use no gloves to dip chocolates.

Q. How do you know? You never were in them, were you? A. No.

Q. Don't you know in those factories the floors are always clean? A. Yes, they clean them just the same. The man goes around and scrubs off when it falls down.

Q. He does it instantly when it falls down? A. Yes.

By Commissioner DREIER:

Q. How often were the copper bowls, the bowls in which you put the jelly, washed? A. Those copper bowls were always clean. Whenever we take out the sugar, we got such a big knife all the candy goes out.

Q. All the candy is cleaned out by a knife? A. Yes.

Q. But never with hot water and soap and soda or anything like that? A. It was washed out once or twice a week.

By Commissioner GOMPERS: (Acting Chairman) Any further questions?

Mr. ELKUS: No, that is all.

Thereupon an adjournment was taken to Friday, October 13th, at 10:30 A. M.

NEW YORK, October 13th, 1911.

RUDOLPH P. MILLER, called as a witness, and being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Will you state to the Commission the position which you hold in the city government? A. I am now Superintendent of Buildings of the Borough of Manhattan, City of New York.

Q. How long have you been such? A. Since the 1st of January, 1910.

Q. What is your profession? A. I am civil engineer by profession.

Q. Have you been more or less familiar with building construction during your professional life? A. Yes; I have been identified with building construction entirely since 1894.

Q. Now, what jurisdiction has your Department with reference to factory buildings, their construction, fire-escapes, and exits in those buildings, and staircases and matters of that kind? A. Our bureau, of course, has jurisdiction over the construction of those buildings as to whether they should be of fireproof construction or may be non-fireproof construction; then also as to the matter of exit facilities, whether they are properly equipped with exit facilities. The bureau passes on this question of exit facilities when the plans for the buildings are first presented.

Q. That is to say before a building can be erected, the builder or owner must file with your Department plans of the proposed buildings? A. Yes, sir.

Q. And these plans must show the ordinary exits, and exits in case of fire? A. Yes.

Q. What test is there by you or your Department or bureau to determine whether or not the stairs and exits are sufficient? A. Section 75 of the Building Code provides the number of staircases which shall be placed in any building used for factory purposes. Then as to whether any additional exit facilities are necessary is largely a matter of judgment.

Q. On the part of the bureau? A. On the part of the bureau.

Q. Does that come to you personally or to some inspector in the Department? A. In case of new buildings or alterations which are proposed, it comes before the engineering division of the Department. In the case of existing buildings where complaints are received that the exit facilities are inadequate, it is referred to an inspector who reports on the case.

Q. Now, take the case of a new building; when they file plans they indicate on the plans the purpose for which the building is to be used generally? A. Yes, sir.

Q. That is if it is a loft building, do they say whether it is to be used for manufacturing purposes? A. There is no special

statement of that kind made. The application provides for the proposed occupancy of the building. That is left entirely to the applicant to state, but the bureau has always considered that when an application is made for an ordinary loft building that that building may be used for most any purpose; that is, either as a store, factory, workshop or warehouse, or any mercantile purpose.

Q. You have no means of knowing, however, how many employees or working people are to be employed in these various buildings? A. None whatever before the building is completed.

Q. And then you have no more jurisdiction over it unless a complaint is made? A. Unless a complaint is made we have no jurisdiction; no systematic inspections or periodic inspections of buildings are made after their completion.

Q. So that your judgment or the judgment of those in your bureau as to whether a certain number of exits are sufficient is practically a guess based upon experience and also upon the location and size of the building? A. Well, it is not altogether a guess. It is fixed largely by the requirements of the law. We feel that Section 75 intends to show just how many staircases are necessary in a building.

Q. How many are necessary in a building twenty-five feet wide and ten or twelve stories high? A. The same as if it were two stories high; that is only one staircase is necessary in a building which does not cover more than twenty-five hundred square feet area.

Q. And if it is fifty feet and covers five thousand square feet area or less — between 2,500 and 5,000 square feet then you require two staircases? A. Then two staircases are required.

Q. And they may be of wood or stone or other material? A. That depends upon the character of construction. If the building under the law must be a fireproof building then the stairs must also be fireproof. There is no provision in the law which requires the enclosing of those staircases.

Q. And there is nothing in the law, and you have no means of finding out whether that building is to be occupied by fifty people or five thousand people? A. We cannot tell.

Q. And therefore you can form no judgment and make no orders as to different fire-escapes or different means of egress

because of the greater or less number of people who are to work in it? A. No.

Q. And you have nothing to do with that? A. No, sir.

Q. And as long as, depending upon the area which the building covers, there is a sufficient number of stairs as provided by Section 75, that is all you have to do with it? A. Yes.

Q. Now, have you anything to do with fire-escapes themselves? A. Yes.

Q. Outside fire-escapes? A. Yes.

Q. What is your jurisdiction with reference to that? A. In the case of any building that is called to our attention, it is for our bureau to investigate and see whether the building is adequately provided with the necessary exit facilities, that being, however, purely a matter of judgment on the part of the bureau, as represented by the inspector who is making the investigation.

Q. And when plans are filed for new buildings, is anything done about exterior fire-escapes? A. In some cases, yes. We have held that a building which requires only one staircase and is filed either as a loft or factory ought to have some additional means of egress. That is, in our judgment, there ought to be at least two ways out of the building.

Q. And that is purely, however, discretionary? A. Entirely so.

Q. Does the ordering of fire-escapes or means of egress have anything to do with the height of the building — simply the width, isn't it? A. Well, the ordering of fire-escapes is altogether a matter of judgment. If in the judgment of the bureau it is considered necessary on account of the height of the building to have more than one fire-escape, why more than one is ordered.

Q. How about stairs — that is simply dependent upon the size of the building — that is to say, the area the building covers, and has nothing to do with the height? A. Yes.

Q. That is to say if a twenty-five foot building is two stories or twenty-five stories high it has only to have one staircase? A. The requirement is the same.

Q. And that staircase need not be enclosed? A. No; need not be under the law.

Q. As to fire-escapes and your Department or bureau ordering them, that depends entirely upon your discretion — the discretion of the inspector? A. Yes, sir.

Q. How many inspectors are there in your bureau? A. Well, we have about sixty inspectors, but their duties are not altogether the inspection of exit facilities. The practice has been in the past that the same inspectors who supervise the construction of buildings also look after complaints as to exit facilities, and pass judgment on the necessity for fire-escapes or additional means of exit. That has been changed to some extent in the last year by the organization of a small force of inspectors which devotes its entire time to the investigation of complaints and the necessity for fire-escapes on existing buildings. That of course has been somewhat crippling to the regular inspection work by taking some of those men, ordinary inspectors, from their other work, and assigning them to this special work.

Q. What salary does an inspector receive? A. Most of them receive \$1,500 a year; some of them \$1,200.

Q. And it is practically the inspector who decides in case of a new building whether additional or any fire-escapes should be ordered? A. After a building is completed; when the plans are being considered the engineers of the Department pass on that question.

Q. Now, what have you to say as to whether or not the present laws are sufficient for the safety of occupants of buildings of the kind this Commission is investigating? A. The powers given the Bureau of Buildings are very broad, and if they had the force of public opinion back of them would be adequate, supplemented, however, with proper regulations issued by the bureau. As I said before it has never been required of the bureau to make systematic inspections. If that were done, and a force necessary for the systematic inspection were provided, I think there would be adequate power in the Building Code now.

Q. That is the force necessary to inspect, to find out whether the exits were sufficient? A. Yes, sir.

Q. What power would your bureau have, if they found that exits were insufficient, to order them? A. We can order them then.

Q. In any case? A. In any case.

Q. What is the penalty for not complying with the order — a suit, isn't it, to recover a fine? A. Yes; the penalty is a fine of two hundred and fifty dollars.

Q. Then you have to bring a civil suit in the municipal court, and that is tried, and there is a fine imposed, if they find in favor of the Department? A. Yes, sir. But then in order to secure a compliance with the orders a separate suit must be started to secure the compliance. The first suit was simply for the penalty.

Q. That always takes several weeks or a month? A. Why, yes.

Q. Or longer? A. It takes a variable time. We have some cases as far back as 1904.

Q. Seven years? A. Yes, sir; I think I had better be sure of my statement —

Q. In the meantime, the building might burn down four or five times? A. Yes.

Q. Have you any suggestion to make to the Commission to remedy that? I suppose you agree it ought to be remedied? A. It certainly ought to be remedied. I think the only effective way is to give summary powers to the bureau to vacate a building where the exit facilities are not found adequate and no attempt is made to comply with the orders of the bureau. Our experience is that this matter of suing for a penalty or suing for a compliance with the orders is such a lengthy process that its object is often defeated and the payment of the penalty does not have the moral effect on the others that it should have. The others say, Well, we will take the same chance of having a suit brought against us; it all takes time and probably they cannot reach us. We have now about 2,500 fire-escape cases pending which have not been complied with, so that it takes a long time to get around to each certain case.

Q. How many cases have you pending? A. About 2,500.

Q. That means that there are 2,500 buildings in the Borough of Manhattan alone upon which your Department has ordered fire-escapes to be placed — A. (Interrupting.) Not necessarily fire-escapes.

Q. Or some means of exit? A. Our fire-escape orders do not necessarily mean outside fire-escapes, because at the present time the bureau is not a believer in the outside fire-escape. We think the exit facilities should be provided in the building itself, and one-quarter of the cases — about one-quarter of the cases, I think, that are filed would be for other things than outside fire-escapes. The outside fire-escapes are considered merely makeshifts.

Q. Then the 2,500 cases include every violation of the law, or are they only as to means of egress? A. These are only as to means of egress.

Q. That is to say, there are a great many other violations besides? A. Oh, yes.

Q. Now, in other words, there are now pending in your Department cases against the owners of twenty-five hundred buildings who have failed to supply proper means of egress to be used in case of fire in those buildings? A. Yes.

Q. And those suits have been hanging along for from seven years down to a day, I suppose? A. We give, of course, a proper time for the compliance with the order.

Q. Before you begin the suit? A. Yes. When we find that there is no effort made to comply with it, the matter is then referred to the Corporation Counsel to start. If the case is a very serious one, we have tried a summons, but that also is a slow process, and is not effective, and does not have a moral effect on the others who may have suit cases pending. For instance, in the case of a summons, we have now one which has, I think, been pending about six weeks, and nothing has as yet been accomplished.

Q. What is the reason, Commissioner? A. Well, that I don't know because —

Q. Is there a special bureau in the Corporation Counsel's office in charge of these cases? A. Yes.

Q. Who is at the head of that bureau? A. Mr. John P. O'Brien, Assistant Corporation Counsel.

Q. And they have an Assistant Corporation Counsel and several assistants of his? A. Yes.

Q. In charge of these prosecutions? A. Yes, sir.

Q. How many cases were there when you came into office a year ago last January? A. Pending?

Q. Pending. A. I will have to refer to a memorandum. (After examining memorandum.) There were 385 cases pending.

Q. And now there are 2,500? A. About.

Q. I mean for prosecutions for insufficient means of egress? A. Yes, sir.

Q. Well, have you asked the Corporation Counsel for an explanation as to why these cases are not pushed? A. No, I have

not. We referred the cases to the Corporation Counsel, and we leave it to him then, except that we follow up our requests for prosecution in such cases as we think most important, with further inquiries, and further requests for prosecution.

Q. The courts in which those prosecutions are instituted are courts which are open all summer? They do not close like the Courts of Record? A. I think so, yes, sir.

Q. Now, your suggestion as to that is that when your Department orders something to be done to furnish additional egress, that unless complied with within a reasonable time, depending upon the seriousness of the case, that you should have a right to close the building? A. Yes, I believe that would have the effect. If we could vacate the premises for a few days, stopping a man's business for a short time, it would have a salutary effect not only on him but on all others who have cases pending, because they might all be at once subjected to that, and that would, I think, bring about a satisfactory condition. If as was proposed in the — I think it was in the Hoey bill, the city should do the work, and make it a lien against the property, I think it would not have a desirable effect for this reason: we have had experience in our unsafe proceedings where we have had to do emergency work on unsafe buildings, and file that cost against the property, we find that the matter drags out and it has no effect on the next man, and in some cases we are not able even to collect the liens because the property is otherwise so heavily encumbered.

Q. Is not your lien superior to every other lien on the property? A. I think not.

Q. Have you any other suggestion to make with reference to the laws, present law, about ordering means of egress, Commissioner? Or perhaps I should ask you this? Are you in favor of having some means provided for systematic and regular inspection of means of egress? A. Yes; I am in favor of that; and a resolution was introduced in the Board of Aldermen, requiring that. That was some time early in the year, but the Board made no provision at the time for the necessary force for that purpose. On this ground the Mayor disapproved it. Since that time I have made a request to the Board of Aldermen for the necessary appropriation to supply at least a force which could take care of such

matters as come to us anyhow in an intelligent way, but I have not yet been able to get the money necessary for that purpose.

Q. Now, take a case where you find the means of egress insufficient, you order a change, and it is complied with, then your jurisdiction ends again? A. Yes, sir.

Q. Have you any power of inspection of the premises to determine whether or not the way to the exit is kept clear and the doors open? A. Well, we do order doors unlocked; we do order obstructions removed and passageways provided to the exits where we find that this has not been done.

Q. What authority have you to enforce that order? A. Only the general authority vested in us under Section 708 of the Building Code, which provides that in all manufacturing buildings where there are a large number of people employed, we can order anything to be done in the way of stairs, doors, passageways and aisles, to facilitate egress in case of fire.

Q. What provisions have you for enforcing those orders — a suit or a fine? A. Only that.

Q. That is one of those twenty-five hundred cases? A. Yes, sir.

Q. And I suppose if at the time the case comes to trial, the owner or manufacturer shows that he has removed the obstruction that ends it? A. It generally does; yes.

Q. And he simply delays the case until it suits his time to get rid of it, and then comes into court, and has the case thrown out? A. Yes, sir.

Q. So that that prosecution in most cases is practically a farce? A. Yes, I think it is.

Q. In the meantime, of course, any fire or catastrophe would have a serious result? A. It may.

Q. Speaking of your inspectors and assistants, have you enough of them? A. I have not enough now to properly handle this work. Construction inspectors cannot very well be spared from their supervision of building construction, as they average thirty-one buildings per man at any one time.

Q. That is buildings in course of construction? A. Yes; so that we ought to have an additional force to take care of simply this matter of complaints, and as to exit facilities.

Q. How large a force would you require for a proper inspection to determine whether or not the conditions which were maintained were proper? A. Well, that would depend on how far the inspection should go — I mean as to the character of buildings. If it should be limited to factories alone, I would estimate that a force of about sixteen inspectors —

Q. At from twelve to fifteen hundred dollars a year? A. Yes; we could make an inspection once a year to see that conditions are maintained.

Q. There has been discussed here, Commissioner, the plan of having a Central Bureau of Inspection for all the Departments, in which this Department could inspect, or have inspected, all the buildings that were used for different purposes, and report the facts, and if necessary, report the facts to each of the Departments for action. What is your view as to the establishment of such a Department? A. I think that is largely a question of expediency rather than absolute necessity. I see no reason why the necessary powers and the duties might not be delegated to different Departments, so far as their particular line of work is concerned, and why there should not be a hearty co-operation between all of the Departments to secure a compliance with the requirements.

Q. Is there any co-operation now between your Department and the Labor Department and the Fire Department? A. Yes; there is co-operation. We receive complaints from the Labor Department, and from the Fire Department, and they are all handled as rapidly as we can, as they are reported to us.

Q. Is there anything beyond that in the way of co-operation, your receiving complaints? A. No.

Q. Do your inspectors ever meet and confer with inspectors of the Labor Department? A. No.

Q. Do you ever meet the Labor Commissioner and confer with him about inspection of buildings? A. No.

Q. Your inspectors practically do similar work in many respects — I mean your inspectors as to egress in case of fire do practically the same work as the factory inspectors? A. No; they do more.

Q. Well, they do more; all right. A. The factory inspector, as I understand it, in performing his duties, examines the build-

ing, and it occurs to him in the examination that it is not properly equipped with fire-escapes or adequate exit facilities. He reports that fact to the Bureau of Buildings, and the Bureau of Buildings investigates and issues the necessary order. The issuing of the order, of course, takes time. The placing of that fire-escape or additional stairs, or whatever it may be, requires consideration.

Q. Well, the Labor Department has no authority to order fire-escapes? A. I understand not, within the City of New York.

Q. They have outside? A. I believe so.

Q. Do you consider an inspection of buildings to determine whether or not the means of egress and ingress are adequate and whether the building was kept in proper condition as far as means of egress and ingress were concerned, sufficient if made once a year? A. I think it would be if the law were thoroughly enforced, and if the necessary powers were given to the head of the Department to vacate the building where there is not a prompt compliance.

Q. Now, you speak about outside fire-escapes, and you said in your opinion those were merely make-shifts, and the best means of egress in case of fire were the ordinary stairs — I do not mean ordinary stairs in the sense as they are now used, but staircases; have you in mind any particular kind of staircase? A. No. I had in mind a good and satisfactory staircase, for factory buildings particularly. I have in mind what is known as the fire tower, which has been very successfully used for some years past in Philadelphia, where it is not only used as a means of egress in case of fire, but is used as the ordinary staircase of the building, in addition to any other stair.

Q. The fire tower is only applicable to a building which is pretty large, isn't it? A. No.

Q. Could it be used in a building 25 by 100 feet? A. It may be a little difficult to get it in there, and keep the light which the owner or the tenant wants. In a building of that kind the owner must make some sacrifice of floor space.

Q. But you have no power to order that now? A. We have power to order it, if we think it is absolutely necessary, but as I said before we have not the force of public opinion back of us to help us secure it in all cases.

Q. Do you know of any cases where it has been ordered by your Department — a fire tower? A. I do not know of any cases where we have ordered it. We have secured it in several cases. For instance, I recall a building now which was altered some time ago where we had —

Q. That is the Brunswick Building? A. No; that Brunswick Building was built a number of years ago, and in that a fire tower was provided. I think it was at my own suggestion at the time, to the architect. There are other buildings here in which fire towers have been provided. I think there is one hotel, I have forgotten the location; but the Uneeda Biscuit factory over on 16th Street also has fire towers.

Q. Those are very large buildings? A. That is; yes, sir.

Q. Now, outside of a fire tower, what other means of egress in case of fire do you suggest? A. I think we ought to divide the subject, to separate the new buildings from the existing buildings.

Q. Well, take new buildings that are to be erected? A. In the case of new buildings there would not be the same difficulty to provide the necessary means of egress as in case of old buildings. I think staircases, staircases thoroughly enclosed, so that they are safe, and in a way smoke proof, are what should be relied on. These should be supplemented — of course, when I speak of staircases, I mean staircases that are properly proportioned. The staircase should be proportioned to the number of people who have to use them.

Q. But you don't know how many people are going to use them? A. No; but we could limit the number of people you can put in a building according to the staircases provided.

Q. That is you could if you had authority by law? A. Yes.

Q. You have no authority at present? A. There is no authority for that at present. I believe such provisions should be made in the law, the same as we now provide that the strength of floors in existing buildings should be calculated and posted so that tenants will not overload those floors. In the same way the capacity of the building, so far as the number of persons is concerned, who may occupy the building should be calculated and determined by the exit facilities that are provided. That should be posted, and no more should be permitted in that building.

The number of staircases and the width of the staircases should govern the number of people who would be allowed to work in the building. The staircase facilities, as you go down through the building, should be increased. There should be certain fundamental principles laid down in the law to guide in the design of these staircases. They may be modified — this requirement may be modified, and should be modified where extra provision is made. For instance, one of the best means of safeguarding life in buildings is undoubtedly the fire wall through the building, the fire wall dividing the building into sections, with openings in it provided with fireproof doors that can be closed, so that all the occupants can step from one section to another, and use the staircases in that section leisurely and not under excitement.

Q. Should staircases be permitted to wind around the elevator shaft, or should they be separate? A. I think they should be separate, although I see no objection if it must be that they wind around the elevator shaft, provided the elevator shaft and staircase both are heavily inclosed and protected. In the factory and loft buildings, nobody would probably do that, wind the stairs around the elevator shaft, where both the stairs and the elevators must be enclosed, because the elevator loses its efficiency so far as the tenants are concerned.

Q. What inspection did your Department make of the so-called Asch Building, prior to the fire? A. I don't know of any inspection that it made prior to the fire — since the building was constructed; I may be mistaken in that, because I am not entirely familiar with it.

Q. No complaint was ever made against the building, therefore you had no reason to inspect it? A. No, we had not.

Q. Therefore, your Department claims absolutely no responsibility for the loss of life which that fire caused? A. No.

Q. I understand it to be claimed that the doors leading to the stairs were locked; would your Department have power over that? A. If we had knowledge of it.

Q. Well, knowledge could have been obtained, could it not, by an inspection? A. Yes.

Q. And the reason — although you have the power to inspect it, as I understand it, your position is that you had no specific

reasons to make an inspection — you have not a sufficient number of inspectors? A. And no provisions in the law is made for a systematic inspection, and it never has been customary to do it. We were following out in the last two years a practice that had heretofore existed.

Q. Heretofore existed? A. Heretofore existed.

Q. If your inspectors had, by chance, made an inspection of this building, either of their own volition or because complaint had been made to you, your first act would be to order that open, and then if they did not open the doors the next step would be to bring the statute into play, and take the course that you did with these other 2,500 cases? A. Yes, and in the meantime he could unlock the doors; he would say to the Judge that his doors were unlocked, and the Judge would tell you that you have no case.

To further illustrate the difficulty about that — we had a complaint in regard to a certain building. We investigated the matter, and found that — I think it was a ten or twelve-story building — we found, on investigation, that on several floors the tenants had not only locked the doors but had built shelving across the doors; they did not want to use the staircase, nor did they want the employees to use the staircase. We ordered the shelving removed, and all the doors unlocked, and we secured compliance with that order. Being a little suspicious, however, we undertook a re-inspection, and found that they had replaced the shelving, and the situation was the same as it had been.

Q. After this Asch fire your Department did make a great many inspections of buildings to see whether or not doors opened inward or outward? A. Yes, sir.

Q. How did you come to do it? A. On complaints.

Q. There were specific complaints about a number of buildings? A. Yes; we received complaints by the thousand.

Q. After the fire? A. Yes.

Q. And some of these 2,500 suits are because of these complaints, I take it? A. Yes. I have a table here which shows how many fire-escape cases were filed, by months, and it will indicate clearly how the activities in that direction grew.

I will say this for our Bureau, that the Asch fire in itself did not increase the activities. It simply helped us largely — public

sentiment was a little more with us after that fire than before, but we had filed a great many cases before that. I made a great many investigations before that building was burned, and not only ordered fire-escapes, but tried to improve the conditions within the buildings themselves.

Q. You spoke about outside fire-escapes a little while ago. What do you think about those? A. I believe the fire-escape, as it is ordinarily understood, to be more or less of a makeshift.

In the first place, the people who are supposed to use them are not accustomed to use them. They very seldom get an opportunity to go up and down fire-escapes. They are generally so constructed that it is impossible, almost, to build them better. You cannot get a wide staircase—the wide staircases that are necessary, in a congested section like Manhattan where you have narrow buildings as a general thing. If we had buildings standing there where we could put stairways down the side of the building, running over just as an ordinary stairway would, and of a satisfactory width, that might serve some purpose; but where you get a narrow stairway, which must necessarily be constructed on an outside fire-escape on a 25-foot building, I maintain it is not adequate. The number of people who can use that is small. They go down to the last balcony, and there, as a general thing, they wait for some one to come and take them down; in the first place, because they don't know how to go down there.

Then there is this danger, that the outside fire-escape is always exposed to smoke and fire that may be issuing from a window on a floor where the fire is actually occurring; in that case, it would be absolutely useless. In the winter time, too, they are likely to be covered with snow and ice in sleety weather, and they are dangerous. For that reason, I think they are merely a makeshift to be applied in cases where we cannot secure anything better.

Q. Isn't the trouble, Commissioner, with the kind of fire-escapes used very largely? A. No.

Q. I mean, for instance, the straight ladder that goes up and down below the balcony, which really requires a man who is strong and active to use? A. You mean a drop ladder?

Q. A drop ladder. A. From the last balcony?

Q. No, not that, but a straight up and down, fixed ladder?
A. A straight up and down, fixed ladder, personally, I think is safer than an inclined ladder, which is only a 60 degree incline — that is to say, which has only an incline of 60 degrees. Personally, I prefer to go down the vertical ladder, but the capacity of the vertical ladder is somewhat less than that of the inclined ladder.

Q. How about a staircase? A. A staircase is all right, if you can carry it down to the street level.

Q. Now, about the last balcony to the street — most of the fire-escapes to-day have a ladder which hangs somewhere along the fire-escape, and which has to be lifted down and put in place by some person? A. Yes.

Q. Suppose they had a fire-escape which is in the form of a staircase — which drops as you walk on it; would not that do away with a great deal of the trouble? A. That is a great improvement on the existing method, and is being provided for in our revised regulations. We insist upon having it in buildings used as factories.

Q. Yes; take a building used as a factory and they have a staircase between the balconies, with this sliding drop ladder — I mean, with one end of it at the bottom; that would certainly afford a satisfactory means of egress? A. You mean with the balanced stairs?

Q. Yes. A. It is a fairly good means of egress; I do not think it is by any means an altogether satisfactory egress for the reason I have stated; that is, that it was likely to be put out of business by smoke and flames that may be issuing from the building, or by snow and ice.

Q. Have you tested — your Department or yourself — this balanced ladder? A. I have never tested it, no; but I have had some of my assistants investigate the question.

Q. You say that in your new regulations you are insisting that that kind of a ladder should be used? A. Yes, sir.

Q. How about interior partition walls in loft buildings; what have you to say about those? A. I think they will furnish one of the very best safeguards.

Q. That is if they are fireproof walls? A. Yes.

Q. How about permitting these partitions to be made of wood?
A. The use of wooden partitions, of course, depends upon the character of the building. In a non-fireproof building, we cannot under the law prohibit the use of wood partitions. Of course, a wooden partition as a fire wall is absolutely of no use.

Q. Is a tenant required, or the owner, when he erects partitions in a building, on a floor, to file plans — must he do that and then obtain the consent of the Department? A. No. We are advised by the Corporation Counsel that the erection of a partition is not an alteration, in the meaning of the Building Code, requiring the filing of an application.

Q. These partitions are in many cases the cause of the loss of life, are they not, in case of fire? They are very flimsy, are they not, as a rule? A. Well, now, just to what extent they are used I am not prepared to say; nor am I prepared to say whether they are always flimsy or not.

Q. Would you suggest that before any occupant of a building should erect partitions dividing a loft, he should obtain the approval of your Department? A. I think it would be well.

Q. And then you could approve of the kind of partition to be erected — which he should erect? A. Yes.

Q. You spoke of some amendments to the Building Code; are they in preparation now? A. There are some amendments in course of preparation by a committee of architects and builders, in which it is hoped to very much improve the regulations for exit facilities.

Q. Going back to the Asch Building. Has any other Department the power of ordering doors unlocked which are locked, or where the doors to staircases remain unopened — any Department except your Department? A. I believe the Labor Department has, in the case of workshops and factories.

Q. It is between the Department of Labor and your Department? A. I think so.

Q. The Fire Department has no authority over it, so far as you know? A. I don't think it has; I am not positive of that.

Q. Is it permissible now for a tenant or occupant to occupy a building before it is finished? A. It is, excepting in the case of a tenement house.

Q. In a tenement house, before the building is allowed to be occupied, there must be obtained a certificate that the building is finished in accordance with the plans? A. Yes, and that there are no violations.

Q. Why is it that there is no such provision as to factory buildings? A. Because it simply has not been provided for in the law.

Q. Do you favor such an amendment to the law? A. I do. I prepared an amendment to the Building Code in 1902, which intended to secure a certificate of occupancy before the building was occupied. It failed then, and several times during revisions of the Building Code since in which it was provided for, it also failed, so that at the present time we have no such provision.

Q. Is it true, then, that before a building is actually finished, or for instance, fire-escapes are in, a man might put tenants in his building—working people? A. He can. We can, however, as we have done recently in a case, by a suit, have the use of that building discontinued until the adequate facilities are provided.

Q. Yes. Now, take this whole problem of inspection; what department, in your opinion, should have in it jurisdiction over that; it should be in one department, should it not, Commissioner? A. Yes.

Q. One department should have authority, and have responsibility? A. Yes.

Q. What department do you suggest should have the responsibility? A. I should think it should rest with the Department of Buildings.

Q. Department of Buildings? A. Yes, for the reason that the question of exit facilities is so intimately connected with the construction of a building that the two almost come together. Any change in the exit facilities will affect the construction so materially that the Department must at least consider it; so that it would be far better that the whole thing should be done by this Department, instead of having it passed backward and forward, between one department and another.

Q. And then if you had such power, you would want summary power to close a building in case the order is not complied with?

A. If a systematic inspection is arranged, as I think it should be. Then, also, application should be made for a certificate of occupancy; at the present time, a building may be erected for one purpose and after its completion may be used for another, and there is nothing in the law to prevent it; there should be a provision covering this.

Q. Yes, a building may be erected for an office building — for office purposes, and then it may be used for factory purposes?

A. Yes. Well, that is not even so serious in the case of an office building and a factory building; the requirements are very similar; but we have recently had a case where a private dwelling, not a fireproof building, fifty or sixty feet high — I don't recall exactly now — was converted into a hospital, which under the law must be fireproof; but because no alterations were made requiring a permit from the Department, the case was thrown out and we were told that it was perfectly lawful to make that change.

Q. How did you find out the change was made? A. It was reported to us some time after the change of occupancy had occurred, by neighbors.

Q. By citizens? A. By citizens, yes, sir.

Q. In other words, your Department has no means of knowing at all, except by means of accidental information from citizens, the uses to which a building is being put? A. We have not, except in certain buildings, of course; for instance, in theatres —

Q. (Interrupting.) Theatres and hotels? A. We are required to make an inspection, where an application is made for a license — one of that kind.

Q. Do I understand you correctly, Commissioner, that in your opinion your Department ought to have any jurisdiction over what might be called fire problems — no jurisdiction? A. So far as they relate to the safety of the occupants. I do not think that the Bureau of Buildings should have jurisdiction over the equipment of these buildings with fire extinguishing apparatus; standard pipes, sprinklers and such matters should rest with

the Fire Department, as that is the Department that must make use of these devices when it is necessary.

Q. Now, over sanitary problems — you, of course, don't have, or don't want to have, any jurisdiction? A. We have.

Q. You have now? A. Over the plumbing of a building.

Q. When new? A. Yes, and the gas piping. After that, it comes under the jurisdiction of the Health Department.

Q. When plans are filed, and they are approved, the plumbing and other matters you mention must be in compliance with the law and to meet the approval of your Department? A. Yes.

Q. And after they are erected, that is the end of it so far as your Department is concerned? A. Unless alterations are made; then application for these alterations is made to our bureau.

Q. Now, take the case of the number of toilets, for instance, in a loft building used for manufacturing purposes; you have nothing to do with that? A. No.

Q. The owner puts in as many as he thinks are going to be necessary, and then puts it up to the Building Department, to determine whether they are sufficient? A. Yes, and depending upon the time when they come around to inspect it, and also depending upon the number of people they may find employed there? A. Yes. That difficulty, I think, can be overcome by filing with the application information as to the number of people the building is to accommodate.

Q. Now, ought plans for new buildings be submitted to your Department and the Fire Department and Health Department for approval, or ought there be representatives of the two others in your Department, to pass upon them? A. I think that one department ought to pass upon the applications. It is just as easy to equip the one department to pass on the question so far as new work is concerned as it is to provide for it in the other departments.

Q. Your Department would be willing to take the responsibility? A. That I would not care to say; I would a great deal rather have the responsibility on some one else. I am talking now in an abstract way, as you see; I think it is best generally, and I think it is best for the community. It does not help the community out much where an applicant for a new building must

run to half a dozen different Departments to get his permit. I think the work connected with the erection of a new building — of any new buildings, and all the applications, could be concentrated in one Department; it would facilitate matters very much.

Commissioner PHILLIPS: Do you think the Building Department should look after the elevators?

The WITNESS: This question of elevators —

Commissioner PHILLIPS: (Interrupting) Of course, there are well built elevators, but then there are also defective elevators.

The WITNESS: I never made a comparison. We have not in our Department ever had complete records as to elevator accidents. I have tried to institute an investigation by which we might secure that information, but it is a difficult matter to get reports on all elevator accidents. We do have jurisdiction over elevators, and do make periodical inspections. Every elevator is inspected when installed, and then there is no further inspection unless complaint is made.

Commissioner PHILLIPS: Are not freight elevators sometimes used by the workmen?

The WITNESS: They are not supposed to be used by the workmen. We require to have a notice posted, reading that persons riding on the same do so at their own risk.

Commissioner PHILLIPS: That is done, of course, to protect the employer against liability?

The WITNESS: That may have been the intention.

Q. How often do you inspect them?

Commissioner PHILLIPS: (Interrupting) As a matter of fact, the men do use the elevators?

The WITNESS: Yes, generally.

Q. Men and women? A. Yes.

Commissioner PHILLIPS: They are forced to use them in many instances by the employer?

The WITNESS: That might be; I am not prepared to say.

Q. Isn't it a fact that the rules of the building require employees, or workmen and working women, to use the factory elevators?

The WITNESS: I am not prepared to say.

Q. How often does your Department inspect these elevators?
A. Twice a year.

Q. Each year? A. Yes.

Q. When this inspection is made, is there a test made of the hoists, of the pulleys, and ropes and things like that; or just merely a casual inspection? A. A very careful inspection. It is such an inspection that the elevator, for a time, is out of commission. We often make inspections of a building after hours and on Sundays, for the sake of keeping the elevators in commission. The inspection means a careful examination of all machinery and all the counter-weight cables. The elevator is passed along slowly down the shaft, and the inspector watches the cables as they pass, to see whether there are any broken strands.

Q. Are they inclosed at all, the freight elevators? A. In all new buildings, they are; we are endeavoring to get them enclosed in all old buildings. Strictly under the law, we have no authority to order them enclosed, but we do that, — under our general powers given in Section 108, — in cases where we believe that leaving them open is a menace to the life of the occupants.

Q. What buildings are there, Commissioner, which may have erected upon them an outside fire-escape instead of a stairway — you have authority to say that? A. Yes. The law provides that in all buildings, the means of egress from that building shall be such as is deemed necessary in the judgment of the Superintendent of Buildings.

Q. Can you tell us what proportion of the factory buildings, since you have been in the Department, have been built fireproof

and those not; are they required to be built fireproof now?

A. Oh, if they are over 75 feet high.

Q. That is, about six stories? A. Yes, or if they exceed 8,000 square feet, when located in the center of a block, or 12,500 square feet, when located on the corner; it depends upon what the area and height is.

I may be able to tell you just exactly for 1910 what proportion was built fireproof.

Q. Yes? A. No, I cannot tell you with respect to factories; I can tell you with respect to buildings generally.

Q. We are interested at this time in factories. You can furnish it to me later, if you will, Commissioner? A. I will.

Q. You consider a fireproof factory over eight stories in height safer than a five-story frame, built in accordance with the present laws? A. Do I understand by frame buildings that you mean with brick walls? I think it depends. It might be made safer, and in some cases it might not be safer; it is very hard to answer that question in a general way.

Q. In other words, is the height of a building a large element detracting from its safety? A. I believe it is. I think the danger is greater as you go higher; but I believe that a well constructed building—I mean, one constructed in frame, with our laws for fireproof construction, giving the necessary safeguards in the way of stairways, etc., and other facilities, I think is very much safer than a building—than a six-story non-fireproof factory.

Q. You are familiar, of course, with the automatic sprinkler system. Do you believe that ought to be installed in buildings above a certain height and width? A. I believe the automatic sprinkler ought to be required in any building where manufacturing is done.

Q. In any building? A. In any building,—even fireproof buildings.

Q. They are not now compulsory? A. I am not prepared to say. The installation of automatic sprinklers rests with the Fire Department.

Q. You have referred, I take it, Commissioner, to what we might consider the defects of the present law in reference to construction of buildings; are there any other defects you want to call attention to, which you think require amendment? A. I want to lay again special stress on that requirement for the certificate of occupancy. I think that is one of the most important things.

Q. How about manufacturing being carried on in buildings above a certain height from the ground? Have you any opinion or suggestion about that? A. I can't say that I have much opinion on that. I believe this:—that those provisions that are made in the proposed amendment to Section 103 of the Building Code by the experts of the New York American are very excellent ones; that no manufacturing should be permitted over a certain floor of a building unless such and such exit facilities as they specified are provided.

Q. In other words, the higher up you go there should be more exits? A. Yes, the more exits there should be.

Q. How about fire alarms? Do you favor the compulsory installation of fire alarms in factory buildings, or other appliances of that kind? A. Yes, I think they ought to be provided, though I haven't given that particular subject much thought.

Q. Should that be under your jurisdiction or the jurisdiction of the Fire Department? A. I think that very properly may be under the jurisdiction of the Fire Department, as it now is.

Q. Is there anything further, Commissioner, that you would like to inform the Commission about, or suggest to them, either for the purpose of legislation or remedial change? A. I should like, if the Commission likes to receive it, to give them a little more definite suggestion in what should be provided in the way of stair facilities in buildings now.

Q. Have you got it in writing? A. I have some suggestions here in writing, some notes I have prepared.

Q. I think we might spread those notes on the record. Will you refer to them briefly? A. Yes, I would like to send them to you.

Q. Very well. Then, as I understand, Commissioner, you will submit a memorandum with a brief to the Commissioners? A. I would like to do so later, getting some more definite suggestions.

Q. Could we have it by the first of November? A. I think so.

Q. Will you submit sufficient copies so I may send them to each Commissioner? A. How many will that be?

Q. There are nine Commissioners and Counsel would like one, so about 12 or 15 copies. A. Yes; may I read some of those suggestions now?

Q. Surely. A. These suggestions are on the matter of staircases. The present requirements as to providing simply the number of staircases proportionate to the area has always seemed to me illogical. The width of doors, stairs and passageways should be proportioned to the number of persons to be accommodated. A minimum width of three feet four inches, providing for two ordinary persons abreast, should be specified for any door, stair or passageway. At least two staircases should be prescribed for any building over four stories high or over 2,500 square feet in area. By that I mean that if a building is only four stories high, one staircase may possibly be all that is necessary. Of course, it is understood my remarks refer to buildings to be used as workshops and factories. These requirements may be a little drastic in residences or buildings of that character. The stairs should be so placed that in no case would it be necessary to travel more than a hundred feet in any horizontal direction to reach one, and that at least one is always accessible to the occupants in case any of the others is rendered impassable.

We have often found that there is a tendency to group the staircases, instead of spreading them as far apart as possible. Every staircase should be enclosed in fireproof construction and should have a direct exterior outlet at the ground floor. The rise and treads of stairs should be so proportioned that the stairs furnish a safe and complete line of travel.

Q. Commissioner, you are going to put this all in your brief or memorandum which you submit, and if you do that — we have a great many more witnesses that have been waiting and I would like not to put them off any longer, and we shall be very grateful to you if we can get 12 or 15 copies of that and we shall make a part of the record, if you desire.

The WITNESS: May I just glance over these (referring to a memorandum) for a minute? There may be something else.

Q. Surely.

Commissioner DREIER: May I ask question?

Mr. ELKUS: Yes.

By Commissioner DREIER:

Q. You say now, that a building 25 feet wide and 100 feet long could only have one staircase. Is only one required? A. Only one is required by law.

Q. Now, if you found that several hundred were occupying that building, can you force another staircase? A. Yes, if we think the exit facilities in that building are not adequate to the people occupying that building, we can compel some additional means of exit.

Q. You can't install an inside staircase? A. We can compel it as far as the law will support us. That is, as far as public opinion supports us. You see if a provision is not made in the law it is very difficult even to go through the courts.

By Mr. ELKUS:

Q. You have no legal power to compel more than one inside staircase? A. No, unless we can show — and it's a very difficult thing to do when it is more altogether a matter of judgment — it is very difficult to say that an additional staircase is absolutely necessary.

Q. Well, isn't the statute very explicit on the subject that where the buildings occupy an area 2,500 feet square or less, there is only one interior staircase required? A. Yes.

Q. Commissioner, how long have you been connected with the Building Department? A. Since 1895.

Q. You were Chief Engineer, weren't you, before you were made Commissioner? A. I entered as an inspector and I served in that capacity for about a year or two, and then was made one of the plan examiners, and in 1901 I became the Chief Engineer and served as such till 1906. I then left the Department to enter private practice in building construction. In 1907 I was one of the Commissioners on the — for the Revision of the Building Code that year, and I was appointed Superintendent on January 1st, 1910.

By Commissioner DREIER:

Q. I should like to ask another question. I understood you to say that you could order fire towers now in buildings? A. Yes, if we think they are necessary to furnish the adequate exit facilities.

Q. And you say you never have ordered one? A. I don't recollect any case in which we have ordered a fire tower, as such. We have ordered a great many — in a great many cases the staircases should be enclosed. I think I have a note here (referring to memorandum). For instance, in the first three months of this year, I happened to have the notes on cases previous to the Asch fire. We ordered in 74 factories and workshops the interior staircases to be enclosed. The difficulty is in existing buildings to provide something satisfactory without causing a reconstruction of the building. Of course, people resist the expenditure of a large sum of money, as this often entails — I had a case recently where we asked for additional interior staircase, and they called my attention to the fact that to provide that would cost about \$20,000 in alterations to the building; whereas if they were permitted to place an outside staircase they might put it in for about \$2,000.

Q. Well, isn't it true that there is hardly a building in New York which has adequate fire-escapes? Are there any that have adequate escapes and wouldn't you have to order a reconstruction of the buildings to make them safe? A. Well, I wouldn't say that there were none that had adequate facilities, but I do think a large proportion of the buildings used as workshops and factories should be better equipped, better safeguarded. Now, it may not be necessary to provide additional staircases. Of course, I think in many cases the building can be made safe by the construction of a fire wall through the middle.

Q. And you have power to order the fire wall? A. We can; we have under the law. We have not been successful, however, in securing it. We have asked for it in several instances.

Q. You have never got it? A. We have never been able to get it.

By Commissioner PHILLIPS:

Q. What do you think of the desirability of a law requiring the enclosing of all elevator shafts? A. I think it is very desirable that that should be done. I think more important still is the requiring of the enclosing of all staircases, especially in non-fireproof buildings.

Q. I mean the enclosing of the elevator shafts, not from a fire safety point of view, but for the safety of the men and women riding. Every year several men and women are killed in this city by the head being crushed between the elevator and ceiling of the floor and joists. Now, whether that ought to be enclosed as a passenger elevator is? A. Well, I don't know that that would prevent that sort of accident to any great extent. It might in a few instances, but I don't think that is the case of their being killed in that way. Cases that I recall of that kind were where they fell through the door opening, before the door was closed or something. You see a good many of the accidents in elevators are due to the carelessness of the man who is running the elevator, or often to the carelessness of the parties using it. They won't obey the caution that is given them. I have tried to analyze that to some extent in my last annual report, to show how many accidents were due to the fault in the construction and how many were due to the fault of the operator or person using the elevator.

Q. But, if the accident is due directly to the fault of the operator and yet its construction should be such that even his negligence would cause the accident — that is, we have got to use our mechanics to offset or overcome the human negligence as much as possible. A. Yes, we ought to do that in all cases.

Q. And these cases where a man is caught between the floor of the elevator and the beams, and the floor or ceiling of the adjoining rooms, would be taken care of by having it sealed up, all the way up, wouldn't it? A. I am not prepared to say that, but it might be if the elevator is properly guarded, even though it is open — I think that isn't a serious —

Q. I don't want to take too much of your time, but I have in mind a case in Rochester where gates had finally been provided by the employer, but they were never used. Elevator men didn't use them and the men working there were foreigners. One man disappeared down the opening, fell five or six stories and was

killed. No one knows how he came to fall. Now, if they had been sealed up there, he couldn't have fallen. It would have been impossible for him to fall, if it hadn't been for that opening on the side of the elevator. A. Yes.

Q. I was wondering to what extent that is being done? A. Well, as I say in all new elevators now we require the enclosing of the shaft.

By Commissioner PHILLIPS:

A bill of that kind last winter passed the Assembly, but didn't get through the Senate. Now the Commissioner of Labor may require it, but that bill made it absolutely mandatory.

The WITNESS: I think it should be mandatory.

By Mr. ELKUS:

Q. Are you familiar with the Hoey-Sullivan bill? A. Somewhat.

Q. Do you approve of it? A. I do not. I think the provision imposing the duty on the Fire Commissioner of doing the work when the tenant refuses to do it or fails to do it, is not a proper one. As I said before, I think the official who has jurisdiction should have the summary powers to vacate the building for the time being. Then we will accomplish something. This other would merely make the city go into the construction business. These tenants who probably don't want to do it, and who are, in a way, compelled to do it under their lease, will say "Well, let the city do it." It only can be a lien against the tenant and it comes back to the owner, and the lien may hang fire for years and may possibly never be collected.

Q. You think the penalty will be to close the building unless the regulation is complied with? A. Yes. There is another feature on that point. That feature in the other — the Herrick bill, providing for a Board of Survey, I think is very proper,

(The following letter was sent to the Commission by Superintendent Miller in explanation of a portion of the foregoing testimony.)

March 27th, 1912.

Mr. Abram I. Elkus,

State Factory Investigating Commission,
165 Broadway, New York City.

Dear Sir.—There is one point which I want to speak of, as the testimony as given is possibly misleading. It is with reference to the number of fire-escape cases that were pending at the time I gave my testimony. The statement I wished to make was that about 2,500 fire-escape cases were pending at that time, an increase from 385 cases at the beginning of the year. It is not true that these 2,500 cases were in the hands of the Corporation Counsel

because if you give summary powers to an official, he may misuse them. Now an appeal ought to be possible from that. I don't think that the misuse of summary powers is as apt to occur as many people think. The Health Department has such power now and we have very little trouble about that as far as I have been able to observe.

By Commissioner DREIER:

Q. In the so-called fireproof buildings, can they use wooden stairs now or not? A. No.

Commissioner DREIER: The reason I asked is because we went into some and had been told they were fireproof, but they had wooden stairs.

The WITNESS: Well, many buildings are advertised as fireproof buildings, which are not approved as fireproof buildings by the authorities.

Q. Would you advise the doing away of all wood in fireproof buildings? A. Not necessarily. In fireproof buildings I think only hardwood should be used, and then it should be backed up by plastering. Of course a minimum amount of wood should be used. I think wood flooring might be provided, if it is filled up solidly on the underside, so that there is little chance for burning. Wood, when it's properly backed up, especially hardwood, doesn't burn. It smoulders, but is not likely to spread fire very rapidly.

Mr. ELKUS: Thank you very much.

JOHN KENLON, called as a witness, being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Chief, you are now Chief of the Fire Department of the City of New York? A. Yes.

Q. How long have you been connected with that Department? A. Twenty-five years.

at the time I gave my testimony. Only about one-tenth were in the Corporation Counsel's hands. The rest of them were either in process of being complied with or had been filed so recently that sufficient opportunity had not yet been given for a compliance with the orders. More than half of those 2,500 cases at the time of my testimony were being attended to by the parties who had been notified.

Yours truly,

RUDOLPH P. MILLER,

Superintendent of Buildings.

Q. And you began as a fireman and have been promoted to the various departments until you became Chief? A. Yes.

Q. And you are familiar with the buildings in New York City which are used for factory purposes? A. Yes, sir.

Q. Have you examined the so-called Asch Building recently? A. No.

Q. Have you had it examined? A. I examined that building about the time it was constructed.

Q. What condition did you find it in, as to complying with the law? A. Good, as to compliance with the fire law.

Q. At the time it was finished? A. Yes.

Q. Did you examine it then as to violations of any other laws but the fire laws? A. No.

Q. Have you examined it at all since the fire? A. Yes, I looked it over.

Q. When did you examine it since the fire? A. Possibly right after the fire. I was around it last April sometime.

Q. What did you find its condition then as to complying with the fire regulations or fire laws? A. The compliance with the fire laws was all right.

Q. As to other laws you had no responsibility? A. I hadn't.

Q. I am informed that there is a statement in the newspapers, attributed to you, that you made before the Budget Committee that there were 2,000 violations of the fire laws against the Asch Building? A. I am not responsible for that statement.

Q. That means to say you are not responsible for the newspapers that printed it? A. No.

Q. What have you found to be the condition, Chief, of the buildings in New York city that are now used for manufacturing purposes, as to their being in a proper state in case of fire? A. I have universally found a tendency to carelessness, in so far as rubbish, and I may say housekeeping, is concerned.

Q. Yes. A. A great deal of unnecessary rubbish strewn around.

Q. What else have you found with reference to these buildings, as to whether or not they are in a dangerous condition? A. We found on our tours of inspection a good many buildings that were inadequately equipped with fire-escapes.

Q. Yes. A. We found violations of the Labor Laws, etc.

Q. How many violations, either of the Building Department Law or the Labor Law, have you found and reported to the various Departments since you have been Chief? A. I just have a little memorandum here (referring to a paper)—since the 18th of August — beginning on the 18th of August and up to the 11th of October, day before yesterday, we reported 1,022 violations of the Building Code, which were referred to the Building Department. We found 627 violations of the provisions of the Charter — that is, particularly sections 762 and 771. We found 401 violations of the Labor Law; 29 violations of the Tenement House Law, and 2 violations of the Sanitary Code.

Q. So that's a total of over 2,000 violations that you have found within less than three months? A. 2,081 in less than two months, yes, less than —

Q. Less than two months. That would be at about the rate of 40 a day. And do you know whether or not those violations of law have been remedied? A. No, sir, I have no means of knowing.

Q. This inspection of the Fire Department by which you found these violations is purely voluntary, isn't it? You are not required by law to make them, but you have them made in order to endeavor to get some safety in this class of buildings? A. That's right.

Q. Have you reported to the various Departments, Labor, Health and Building Department, the exact violations in each case and given the number of the building? A. Yes.

Q. I understand, Chief, you don't like to give the numbers of these buildings, because you don't want to unduly alarm the occupants? A. Quite so.

Q. Now, in many of those cases are the conditions dangerous to life in case there are fires? A. Yes, sir.

Q. You have spoken of a thousand violations of the Building Law. Those all relate to fire violations, you may call them; that is to say, inadequate fire escapes? A. Particularly to means of egress in case of fire.

Q. In case of fire? A. Yes.

Q. And the 600 violations that refer to the provisions of the Charter, what do they refer to specifically? A. Well, they

more specifically refer to hotels, lodging houses — means of communicating alarms, interior alarm system and such things as that.

Q. What is your information and opinion with reference to fireproof buildings being safe buildings in case of fire? A. They are safe so far as the building itself is concerned.

Q. How about the occupants? A. Then they are not quite so safe.

Q. What could be done to remedy it with existing buildings and with new buildings? A. Well, with new buildings the tower fire-escape could be put in and there should be and could be baffles, or fire walls dividing the floor space, especially in very high buildings.

Q. Anything else to suggest? How about wooden trim in the interior of so-called fireproof buildings? A. I wouldn't have any.

Q. Would not have any? A. No, sir.

Q. Would you say there was more or less danger in so-called fireproof buildings than there was in those that are not? A. So far as the danger to life, it depends largely upon the condition of the business. In the matter of light manufacturing, clothing and novelties and things of that kind that are highly combustible, a fireproof building is just as dangerous to life as any other building.

Q. In a fireproof building, so-called, isn't the danger — where there is inflammable material in the interior of the lofts — that the people are trapped and cooked to death, the building not burning at all? A. Quite so; the building won't burn, but it is destructive to life.

Q. Of course you are familiar, Chief, with the automatic fire sprinkler system? A. Yes, sir.

Q. Do you know whether or not insurance companies only recommend or reduce insurance if certain kinds of automatic sprinklers are used? A. I believe the insurance companies have a test to which they subject a sprinkler-head, and unless it comes up to the requirements of that test they reject it and make no allowance for the installation of the sprinklers, except the owner puts in a head that is approved.

Q. Well, is it not a fact that certain heads have been approved by the insurance companies and that it is very easy to find out what those are, and the others are not approved? A. Well, Counselor, I take very little interest in that part of it. We approve heads whether they are approved by the insurance companies or not.

Q. Now, this approval of heads is a question of what degree of temperature will cause the material of which they are made to melt? A. Not exactly.

Q. Well, what is it? A. Well, I couldn't say just exactly what it is, but the sprinkler head itself, of course, don't melt; it is only the link that holds it down, the fused metal that holds it down, which, of course, is a very simple thing, but the construction of the head and the operation of the head under pressure then becomes quite a different matter.

Q. Does your Department approve of heads? I mean, do you pass upon them? You said that you would approve of a head which the Insurance Department might not approve of? A. Yes.

Q. How did that come before you? A. Plans of that kind are usually submitted — they are submitted.

Q. Under 762 — they are submitted under Section 762 of the Charter, to you, and then you test them? A. We don't test the head exactly.

Q. What do you do? A. We look into the matter. We don't subject it to the test that the Underwriters do. They have a laboratory for that purpose, but we find that the heads operate fairly well, and we are not bound by any rule of the Underwriters' that I know of.

Q. And you look for efficiency and not for any particular head? A. That is the idea.

Q. Have you ever heard that there was a trust in sprinklers, among the manufacturers of sprinklers, in which the insurance companies participated? A. I believe I heard a rumor of that.

Q. A rumor. Did you ever get anything more than a rumor? A. Nothing more definite.

Q. Of course it is a fact that the insurance underwriters only approve of certain sprinklers, and one of the objects of putting

in a sprinkler system, besides safety to life and property, is to get insurance premiums reduced? A. Yes, sir.

Q. And unless the owner or tenant puts in the kind of sprinkler system of which the insurance company approves, he can't get his premiums reduced although the Fire Department may approve of the sprinkler system? A. Well, that is a very important question; it is going right into a matter of business, Mr. Elkus, and I am not a business man, in that sense — I don't know much about trusts or corporations.

Q. Well, this is simply a question of getting a sprinkler which causes the reduction of premium and assure safety? A. Well, if the state law would say that the approval of the Fire Department was sufficient, then perhaps they could make the insurance companies reduce the premiums.

Q. You mean that to be a way of making them see the light? A. One of the ways.

Q. Now, would you be in favor of making a sprinkler system mandatory in buildings above a certain height or size? A. I certainly would.

Q. And then it would become very necessary, if that were done, that instead of the insurance companies passing upon the efficiency of the sprinkler system, it should be the Fire Department? A. Quite so.

Q. In what class of buildings would you make a sprinkler system mandatory? A. In all buildings used for manufacturing purposes.

Q. Of any size or height? A. Of any size or height.

Q. Do you believe that they would contribute largely to the saving of life, in case of fire, as well as property? A. I believe that the sprinkler is the best single means of preventing fires, and saving life to-day known to scientific fire-fighters.

Q. And they should be installed in new buildings and in existing buildings? A. Yes, sir.

Q. As a matter of fact, in most modern, high-class buildings they are voluntarily installed by the owners? A. Usually they are.

Q. Do you find the statutes sufficient — the present laws sufficient for the preservation of life in cases of fire, or have you any

suggestions to make for amendments? A. Well, as a layman, I find it very hard to interpret the laws.

Q. You are not the first. A. They are so peculiarly distributed amongst the different departments that it is really very hard to say where the jurisdiction and the authority lies.

Q. That leads up to this matter then. One of the great troubles is the division of responsibility, created by statutes among the different departments having jurisdiction over factory buildings. Would you favor the centralization of all power in one department — either in an existing department or a new department?

A. I would certainly favor the concentration, or the centralization of power in one department.

Q. And do you believe that if it were centralized in one department there would be a great improvement in methods for the safety of life in case of fire? A. Yes, I believe that conditions can be vastly improved.

Q. Well, have you any other suggestions to make, beside the centralization of power over factory buildings? A. Well, the fact of centralizing power would not of itself amount to very much except there was additional legislation in the way of empowering the head of that department to enforce his orders.

Q. Yes. Well, how should they be enforced, in your opinion? A. Of course, now we know that, for instance, we made these 2,210 complaints to the different departments, calling to their attention the actual violations of the law in specific buildings and specific places.

Q. Did you ever hear anything more about them after you had these violations reported? A. Not a word.

Q. Not a word? A. Not a word.

Q. From any department? A. Not a word.

Q. Did they even acknowledge your letters? A. No, sir.

Q. And you don't know whether the slightest attention has been paid to those facts which you laid before them? A. I couldn't say.

Q. And in many of the cases, Chief, they required immediate action in order to preserve life in the case of fire? A. That is right.

Q. And you really mean to say that they never even answered your letter or say they had received it? A. No chronological record of violations is kept, and therefore we do it as a matter of courtesy. We are not required to do it. Tens of thousands of inspections are made and reported that we are not required to make, in order to prevent loss by fire, loss of property and loss of life.

Q. Well, you don't feel very much encouraged, do you, to go on? A. Oh, yes, we are hopeful.

Q. Is it likely that from the conditions as you found them, that there might be a repetition of this so-called Asch fire at any minute? A. At any minute.

Q. With the same result in loss of life? A. Yes, sir.

Q. And that is because the violations of law are not being attended to? A. Well, it is because the conditions have not been improved, yes.

Q. That is to say, it might occur because there were inadequate fire-escapes or means of egress, or rubbish on the floors, or doors that were locked, or doors that were opening the wrong way? A. Yes.

Q. What is your opinion about exterior fire-escapes, the kinds we have in use here in the city? Are they of any use? A. Yes. The exterior fire-escape is very useful, and very handy, but it is not as good an escape as the tower fire-escape. It is better than the interior stairway.

Q. It is better? A. Yes.

Q. Than the interior stairway which is not enclosed by a fire wall? A. That is the idea.

Q. Now, as to the kinds of exterior fire-escapes. Is the ladder which runs straight up and down — do you approve of that, or a staircase and with a balanced ladder at the end? A. I approve in all cases of the staircase where it is possible to get it. The perpendicular ladder is certainly a very difficult matter for aged women or children to get down, but, as a rule, Mr. Elkus, they are not required to come more than out on the balcony. If there was no Fire Department, and they had to come all the way down and use those drop ladders and all that, it would be a different matter. We generally take the people off the fire-escapes with the ladders of the fire apparatus.

Q. How often do you inspect buildings other than theatres and hotels — this voluntary inspection? A. We make a special inspection twice a year, semi-annually, in April and October, and we are continually inspecting them.

Q. Do you favor an inspection by the Fire Department — a compulsory one, provided by law, similar to the inspection they make of theatres; or isn't it necessary? A. Well, it would require an enormous force to make the same inspection that you make of theatres; because we practically inspect a theatre twice each day while it is open to the public.

Q. Well, you have a man there practically every day in each theatre? A. We have a man there all the time.

Q. Of course, that would not be possible, but would you favor an inspection oftener than twice a year? A. The present inspections are quite sufficient if we had some power to enforce them.

Q. After you have made the inspection? A. We have no power at all, except as the slang phrase says, "a slight bluff."

Q. You can throw the bluff, and whether it works or not you can't tell? A. You might as well throw a scare.

Q. Now, if your Department had the power to enforce its inspections, to enforce compulsory compliance with your orders, you believe that would be all that was necessary? A. I think, if they would take a man over to the Police Court, or some Court, and fine him \$25 or \$100 for the second offense, it would have a very salutary effect.

Q. How about ordering the building closed in case he would not comply with your order? A. Well, I like to foster industry in New York.

Q. How about fire-alarm systems, and fire drills? Have you had any experience with those? A. Yes, sir.

Q. Well, what is your opinion about them? A. The automatic sprinkler system usually furnishes an alarm. It is very reliable, inasmuch as that it is absolutely independent of panic; it is automatic, and when the temperature reaches a certain height, the sprinkler-head starts the flow of water, sends in an alarm. In other words, the fire sends its own alarm, and immediately the sprinkler starts to extinguish it. This, to my mind is the best known means of sending in alarms. It depends upon no excited person, because its operation is sure and automatic.

Q. Chief, as a matter of fact, if, as you put it very aptly, if people kept clean house, and had a sprinkler system, a very large percentage of the danger or loss of life in fire would be avoided?

A. I honestly believe that if there had been a sprinkler in the Asch Building there would not have been one life lost.

Q. And to put sprinklers in the Asch Building would have cost how much? A. Well, not more than \$5,000 would be necessary.

Q. \$5,000, that would have saved 143 lives? A. Yes.

Q. Not to speak of the property? A. Yes.

Q. And that is true, isn't it, practically, about every manufacturing building? A. Practically true about every manufacturing building.

Q. So that if it were mandatory that sprinkler systems should be installed, and also that the employer should keep a clean house and not allow rubbish around, there would be very little danger of loss of life? A. Very little.

Q. Now, how about a fire drill? Do you think that is of any use? A. It certainly is.

Q. It is of use in stopping panic? A. Yes, it is a very excellent thing.

Q. Now, take this Asch fire a moment. With the sprinkler system you say you don't believe there would have been a single loss of life. You mean that as soon as the fire started, before it got any great length, these automatic sprinklers would put out the fire? A. They would have immediately sent in the alarm, in which I believe there was some delay, and they would undoubtedly have held the fire until the arrival of the Department.

Q. And then you could have taken the people out? A. The fire would not have amounted to anything.

Q. It would have been a little bit of a fire? A. The probabilities are these sprinklers would have had the fire under control before the Department arrived. We have such cases every day.

Q. Where the sprinklers put it out? A. Where the sprinklers hold the fire, send in the alarm.

Q. So your opinion — so your testimony is derived from an actual knowledge of similar cases? A. Exactly so.

Q. Well, is it a fact, in your opinion, Chief, that because the insurances companies only approve of certain sprinkler systems, that that has been a great deterrent to putting sprinkler systems in buildings in the city? A. No, sir. I don't believe that that has any appreciable effect on it at all; because the price of the heads is about the same.

Q. It has been requested that you give the address of some of the buildings where another Asch Building fire is likely to occur? A. Do you want them?

Q. Well, I have been asked to ask you that. If you think it is unwise, I won't press it. A. I think it is unwise to do that.

Q. You can give it to me privately. A. I can give it to the Commission, yes, but I think it is unwise to scare two or three thousand girls again.

Q. You think it might scare two or three thousand people? A. Yes.

Q. Well, I don't think we want to ask you then.

The CHAIRMAN: Those cases that you have in mind are different than the others?

The WITNESS: They are different, of course.

Q. The addresses which you will provide are of a number of buildings, not one, but a number? A. Oh, yes, several — 100 — two or three hundred.

Q. Is there anything further that you would like to suggest to the Commission, Chief? A. No, sir; I don't know that there is anything more for me to say.

Q. Have you anything to suggest as to how you would put in operation or effect a drill in a loft building used for manufacturing purposes? A. Well, there has got to be — of course, it is like a matter of training in any other case. So far as the Fire Chief is concerned, Mr. Elkus, he has very little to do with fire drills. Now, this is apart from the fact that I understand how the thing should be carried out, but a Police Sergeant would probably be a better drill master than a Fire Chief; so that you won't take it — it is not a professional matter to me at all. How-

ever, we readily understand that there have got to be regulations established, and that they have got to be divided off as to the exits that they are to go to in case of danger, particularly if they have got to go on the fire-escapes. Girls have got to be trained to go out on fire-escapes at dizzy heights.

Q. They have got to get used to it? A. They have got to get used to it. They have got to have a man there to instill a little confidence, and they should go out there once in a while so that they will be able to use those fire-escapes in case of danger.

By Commissioner DREIER:

Q. Is it your opinion that they can be trained not to be terrified at getting out on the fire-escapes? A. Well, yes. I think the majority of them can be trained.

Q. Well, wouldn't that require a great deal of training? A. No, as a matter of fact I haven't found that girls were any more scary of danger than men. I have found they would go down fire-escapes with a good deal of courage.

Q. May I ask a question? You say that this head of the sprinkler goes off because of the heat of the fire? A. Yes.

Q. And how hot must the fire be to get it in operation? A. That is a matter of choice. You can set the thermostat to go at any temperature.

Q. Oh, you can at any temperature? A. Yes, you can set it to go at 100 or 120 or 200 or 300 or just whatever degree of temperature you like.

Q. I see. Do you think that this sprinkler would be sufficient in place of a fire wall? A. No, I would like to have a fire wall, too, where there is a great large area. Where there is a great floor space I still believe that there should be partition walls — fire walls.

By Mr. ELKUS:

Q. Chief, ought there to be different standards of fire protection for different classes of manufacturing, such as where there is greater danger; for instance, in the case of chemicals and in the case of clothing? A. Well, yes, I would say the regulation

should be a little different in the case of explosives, or what we know as low explosives, such as naphtha and oils, and things of that kind.

Q. Are you familiar with the provisions of the so-called Sullivan-Hoey bill? A. Well, not exactly; I haven't been asked very much about it.

Mr. ELKUS: Well, I won't ask you about it. I am much obliged to you, Chief, and the Commission is also. That is all.

ROBERT D. KOHN, called as a witness by the Commission, being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Mr. Kohn, what is your profession? A. I am an architect. Whatever I say will be in my individual capacity. I expected to be here as a representative of a number of associations — the National Fire Protection Association, and so forth, the number that I have mentioned in the brief that I have handed in, but my statements will be made as an individual statement. It is to urge the possibility of a State Building Code, not as substitute for the local Building Code, but rather as a basic code which shall set down certain initial requirements to apply to every city and community in the state, leaving to the individual communities the power to extend those requirements to meet the special needs of the district.

Q. Something like the provision of the statute with reference to general offenses, and permitting the Board of Aldermen to pass local ordinances, supplemental? A. Exactly. It is not in any way original or novel in this country. The State of Ohio has adopted a State Code within six months, and the State of Pennsylvania has a Commission dealing, I believe, at the present time, with such a State Code. Now, the importance of the code, in my opinion, would lie entirely in its nature. A code such as the State of Ohio has recently passed would be most unfortunate. The advancement of the art of building, the new building materials which are constantly appearing, and the methods of building are so constantly changing that a State Code going into every detail of construction, would be a most unfortunate measure.

On the other hand, a State Code which limited itself to certain essential basic principles would be of great value. My reason for that is as follows:

We have, at the present time, certain requirements in the larger cities. There are practically no requirements for building outside of the larger cities, so far as I know, at the present time. You build a building in a certain way on the south side of 242nd street, in the Borough of the Bronx, and entirely different requirements are required on the other side, or within 100 feet of the same street. That is particularly noticeable when you get in the outlying villages and outlying cities of this state. The form of construction used in the smaller towns, villages and cities up to 30,000 and 40,000, is very bad. Probably every member of the Commission knows of factory buildings four or five stories high, employing hundreds of people in the smaller towns, that are built of wood without any adequate escape.

Now, my idea in urging a State Code is that there is no more reason for building a five-story wooden factory building on the top of the Catskill Mountains than there is to build it on Mercer Street or in Waverley Place, so far as that is concerned.

The danger to life in factories, in my opinion, does not lie entirely in the height of the factory building. It lies equally in the low factory building, to a large extent. The Newark fire was an indication of what a three-story building will do — that was only three stories high, I believe — if fire breaks out, if inadequate fire-escapes are provided, or improper methods of exits are allowed.

I should say that the State Code should probably confine itself to a very few points, which I have outlined in the brief that I wish to present. It would prohibit the use of inflammable roofs on any building within the state where any part of the building comes within, let us say, fifty feet of an adjoining structure on any side.

Q. What do you mean by an inflammable roof, Mr. Kohn?

A. Well, a shingle roof, or wooden roof of any character — a shingle roof such as is used on barns and buildings in the country. Such a restriction would not prohibit or prevent the use of shingle roofs in the open country, or in villages where houses are widely

separated, but it would prevent the construction of a continuous row of inflammable buildings with inflammable roofs. A State Building Code would probably require, where non-fireproof buildings were built in rows, that the intervening walls should be built of brick or other fireproof material at least twelve inches thick, with parapet walls, and so constructed as to prevent the spread of flames across the roof. Such a code would require that factories more than one story in height, having an occupancy of greater than 50 or 75 people, should be built with walls of fireproof material; that every elevator shaft in any building shall be enclosed by brick or other fireproof walls, and that every space on every floor occupied by workers should have two means of exit, and that every staircase in such buildings shall be similarly enclosed, as well as the elevator shafts. That has been freely referred to in detail by Superintendent Miller, and this point of two means of exit is an essential point.

Then it should be provided that every area in the factory building having more than, say, 100 people on the floor, must be subdivided by a fire wall or fire partition. That is a perfectly possible thing to do in these buildings, and it is probably the best method that has ever been suggested. A cutting between sections of the floor, and then let each section be subdivided in the ordinary way, and provided with two exits so as to be perfectly safe; and then it would be required that buildings more than a certain height — two stories, let us say, in height — and having more than 100 people to a story, be provided with at least a certain number of fire towers that have been previously referred to at your hearings.

Now, Superintendent Miller in his testimony referred to the certificate of occupancy, which, I think, is a very valuable point. In my brief I have referred to the fact that the New York Code at the present time requires one to post on every floor of a factory or loft the number of pounds that that floor will carry. It seems to me that the law should require that the number of people that may be accommodated on that floor should be definitely posted, and I should urge that the State Code should definitely fix the number of people that should be accommodated on any floors on the basis of the exits that are provided for that floor, and at no time any existing or new factory building be

allowed to accommodate on any floor a number of persons greater than the exit facilities provided for would permit of, under a certain rule that could easily be established.

Naturally enough, such a code would provide that a building should not accommodate a greater number of persons on a floor within a certain area than the facilities for the exit would provide for — that a larger number of persons, perhaps, within a certain area, might be accommodated; and finally, I should urge that such a basic code — I want to lay stress on making it a basic code for the whole state and not a local code — not a code that goes into details or method, but a basic code should be drawn up by experts, engineers, and, I say modestly, architects, fire protection experts and experienced builders.

Mr. ELKUS: Leaving out the lawyer?

The WITNESS: We would eventually have to come to the lawyer. We all do sooner or later.

And in ending, I want to urge that perhaps the words that cover the point of such a code is that it should outline, not means of construction, but means of life, property and health protection, that the State Building Code should limit itself absolutely to the means of protection of life, health and property, and not the protection of buildings.

I think that is the very essence of the suggestion that I bring before you. I am allowed to say that the National Board of Fire Underwriters, and the New York Board have authorized me to say that they favor this plan, and would be very glad to appear before you, if you care to hear them, in favor of it.

Mr. ELKUS: We should be very glad to. Will you communicate that fact to them?

The WITNESS: I imagine your secretary has already communicated with Mr. Smith or Professor Wilson.

Q. Can you tell me, Mr. Kohn, whether or not Section 105 of the Building Code prohibits the erection of a wooden partition in a building similar to the Asch Building? A. If I can remember No. 105 — of course, it is a rather complicated Building Code —

I should say it did; that is to say — no, the Asch Building — the Washington Place Building was less than 150 feet in height, and therefore wooden trim was permissible.

Q. If it is more than 150 feet in height they couldn't put wooden trim in it? A. They could not.

Q. 150 feet would be about twelve stories? A. Usually eleven — eleven or twelve stories.

Q. Above that they are required to put metal trim? A. Either metal or fireproof wood.

Q. Section 108 — does not that require that all aisles must be free from encumbrances? A. It does.

Q. And the jurisdiction to enforce that is with the Labor Department, isn't it? A. I believe so, yes.

Mr. ELKUS: Thank you very much, Mr. Kohn. We have your brief, for which the Commission is obliged, and it will be spread upon the record.

The brief referred to is included in Appendix IX of the Commission's Report.

AFTER RECESS.

Mr. ELKUS: Chief, will you give the stenographer your full name?

Mr. BEGGIN: William T. Beggin.

WILLIAM T. BEGGIN, called as a witness, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. You are connected with the Fire Department? A. Yes, sir.

Q. How long have you been connected with the Fire Department? A. Twenty-five years.

Q. How long as Deputy Chief? A. One and a half years.

Q. While you have been in the Department in the latter years, have you made a study of any one particular thing in the Department — fire prevention appliances? A. Well, I was in charge of the Bureau of Violations for nearly seven years; that covered fire prevention.

Q. The Bureau of Violations has charge of what? A. The enforcement of section 762 of the Charter of Greater New York.

Q. What do you do under section 762 of the Charter, with reference to factory buildings — as to manufacturing carried on?

A. At the present time?

Q. Yes. A. At the present time, I don't do anything other than to supervise reports that come through my office.

Q. Reports made, and by whom? A. By the man in charge of the Bureau of Violations. Understand, I am not now in charge of the Bureau of Violations.

Q. I mean when you were in charge of it. A. The reports were made by the various officers —

Q. (Interrupting) Yes. A. And forwarded to the Bureau of Violations, where they were examined, and the conditions noted, and recommendations made; and investigations of the recommendations made by the men detailed. Uniformed firemen detailed as inspectors, in the Bureau of Violations.

Q. How many firemen are detailed as inspectors or were when you were in charge of that Bureau? A. The force fluctuated to some extent. At one time I had an entire force of about 25 —

Q. Yes. A. (continuing.) And at another time the force consisted of about two.

Q. How many inspections of the various buildings in the City of New York did your force make in each year? A. I would have to consult the records.

Q. You could not tell until you consulted the records. How many buildings do they inspect? A. We practically had reports on every building except tenements and small structures.

Q. And with the force of men that you have named, you were able to make inspections to find out if any of the provisions of Section 762 were violated? A. Some of the reports were possibly six months after the original report was made.

Q. Yes; that is to say after a report was made, it took six months before it was finally investigated? A. All cleaned up.

Q. Why did it take so long? A. The inadequate force.

Q. So that the conditions that were discovered on one day were not remedied for six months after? A. Well, that is pretty broad. It was not altogether dangerous conditions; they were trivial matters, slight things requiring correction that could afford to wait six months.

Q. You mean matters that were simply trivial? A. Most assuredly.

Q. What did you do in those cases? A. I could not at this time give you the exact amount of time that would elapse between the time that the report was received and when action was taken unless I had the records to consult.

Mr. ELKUS: I will allow you time to consult these records, Chief, and find out in the last year that you were Chief of that Bureau how many inspections were made, by how many detailed firemen, and the number of these instances — The result of these inspections; you will let me have that, will you?

The WITNESS: I shall be very glad to do so.

Mr. ELKUS: I will give you plenty of time in which to do it.

Q. Isn't that under your jurisdiction now? A. No.

Q. Under whose jurisdiction is it? A. The Chief of the Department,— Chief Kenlon.

Mr. ELKUS: Very well, I will ask him to look it up; I will not bother you about it.

Q. Have you made any study or are you familiar with fire-escapes — exterior fire-escapes? A. Somewhat.

Q. What is your opinion as to exterior fire-escapes? A. Exterior fire-escapes are used, usually, when no other means can be provided for exit purposes.

Q. Do you recommend them or not? A. Not as a rule.

Q. What do you recommend? A. Inside stairways.

Q. Properly guarded? A. Properly guarded.

Q. And if there are properly guarded stairways in the interior of a building, you would not require exterior fire-escapes?

A. Not if they were properly guarded.

Q. What do you mean by properly guarded? A. Provided with fire doors or fire walls, separating them from the interior of the building proper.

Q. And the stairs themselves to be made of metal or stone?

A. Metal or stone.

Q. Are you familiar with the subject of fire drills? A. In a general way.

Q. Do you favor them? A. I am absolutely in favor of them.

Q. How about the sprinkler system? A. I am absolutely in favor of sprinklers.

Q. Have you anything else you want to call to the attention of the Commissioners? A. I want to call your attention to this matter here (handing paper to counsel). That is a description of the work of the Bureau of Violations.

Q. You leave this with me, will you? A. Yes, sir.

Mr. ELKUS: I will probably want you again, Chief, after we get through with this (referring to the paper containing a description of the work of the Bureau of Violations.)

The WITNESS: I will hardly be able to get the other information that you want to-day.

Q. Are you in favor of the fire wall, dividing the loft or floor? A. Yes, sir.

Mr. ELKUS: Very well, then, Chief; I will not trouble you any more to-day.

Mr. ELKUS (Continuing.) Now, Commissioner Williams.

JOHN WILLIAMS, called as a witness and duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Commissioner Williams, you are the Commissioner of the Labor Department of the State of New York? A. I am.

Q. How long have you been such Commissioner? A. A little over four years.

Q. During that time, you have had active charge of the Department? A. I have.

Q. What has your Department authority over with reference to factory buildings? A. The general enforcement of what is known as the factory law.

Q. Well, now, explain briefly to the Commissioners what you mean by that, a little more fully; what is done to enforce the law; how do you discover violations of it, and when you do discover violations of it what action is taken? A. Strictly speaking, the Factory Law is contained in Article 6 of the Labor Law.

Under the provisions of this article, the Commissioner of Labor, through the operation of factory inspection, is required to inspect all manufacturing establishments in the state, and to enforce therein the provisions of the sections of the law relating to these establishments.

Q. Now, is there any way of the Labor Department ascertaining where factories are located, their kind and nature, and the number of employees therein? A. There is no way of ascertaining it, except by the observation or care of our inspectors — our corps of inspectors.

Q. How do your corps of inspectors find out where a factory is located and what business is carried on? A. By patrolling the districts to which they are assigned.

Q. Who assigns them to the various districts? A. The chief inspector.

Q. That is to say he apportions off a city or town? A. He does.

Q. Or locality? A. He does.

Q. And assigns a particular inspector to that locality? A. He does.

Q. Is the same inspector in the same locality year after year or is he changed? A. Sometimes a change is made.

Q. How often is he changed? A. Well, there is no set rule as to that; it all depends upon what we deem advisable.

Q. And this inspector, then, has to discover for himself what manufacturing establishments are within that particular district? A. Precisely.

Q. He is given no list by the Department as to the number of establishments? A. We have prepared no directory for some years. I think that the last directory of manufacturing establishments published in connection with our annual report was in 1903. That directory, however, was not ever completed, for it did not contain as definite information as in my opinion was advisable.

Might I add, however, that provision was made by the legislature of this year for an appropriation of what is to be known as an industrial directory, under the direction of the Commissioner of Labor. This in due time will be done, and when done, our Department will have a fairly comprehensive, and I might add, fairly accurate directory of manufacturing establishments. Might I continue?

Mr. ELKUS: Surely, go right ahead.

The WITNESS: (Continuing) I believe that it would be advisable for the state to adopt the system in operation in England, where all manufacturing concerns are required to register within a given period of time after they have started operations. Failure to do so, under the law, within the prescribed period, is punishable by a fairly heavy fine.

If we had in this state a similar provision, the Department would be in a position to direct the inspectors of the Labor Department — its inspections would be more effective, and consequently we might expect to render more efficient service.

Q. So that you strongly recommend that there be some system which is practically a license system? A. I recommend most strongly the requirements for registration of all manufacturing establishments.

Q. Well, now, Commissioner, your inspectors, after they find out where a factory is, inspect it for the purpose of ascertaining its condition; are these men who inspect — are they trained in any business or profession, or are they selected haphazard from the Civil Service list? A. They are selected from an eligible list furnished to the Commissioner of Labor by the State Civil Service Commissioner. I presume it is unnecessary to describe how these lists are established.

Q. Oh, yes; we know about that. A. Yes.

Q. They go into these buildings then where manufacturing is supposed to be carried on, and make an inspection to discover whether the sanitary arrangements are satisfactory, and to see if they comply with the law, and also with reference to fire prevention; is that correct? A. So far as Greater New York is concerned, our power with respect to the danger from fire is very limited. As a matter of fact, we have no authority to deal with the subject of fire-escapes.

We have authority to deal with the matter of locking doors, hand rails, stairways, also proper lighting of stairways, and to see that the exits are accessible.

Q. Then, as I understand you — as to a building in Greater New York, your Department has jurisdiction and power to control the locking of doors that open on stairways — to see that all entrances, and exits to fire-escapes, and stairways, are kept clear; that is about all that you have to do with reference to fire or fire prevention? A. Substantially all.

Q. Hand rails and open stairways? A. And hand rails and open stairways.

Q. And you inspect buildings, as we were told by Mr. Schnur, about once a year, with reference to those matters and the other matters delegated to your care by the statute? A. That is not exactly correct, Mr. Counsel.

Q. That is not? A. We inspect each manufacturing establishment, so far as we have knowledge of its existence at least once a year. Some establishments are inspected more frequently, especially where we have had occasion to issue orders directing a compliance with certain definite provisions of the law. Such orders are followed up; and we have instances on record where our inspectors have visited some establishment as often as three times within a year.

Q. These are very few, though? A. Not necessarily.

Q. Suppose your inspector visits a building and finds the doors leading to the stairways locked — what does he do? A. Under the instructions now in operation, each inspector is required to report such facts instantly to our counsel.

Q. When you say, "now in operation," what do you refer to;

you mean since what date? A. Since the tragical fire in the Asch factory.

Q. Before that, what did he do? A. The orders were issued in the usual way, and filed just as I have described — followed up just as I have told you.

Q. Then he made this report? A. Yes, sir.

Q. The inspector did not have to report? A. In the first instance he did.

Q. Then when that report came, when it was copied, say, an order was issued by your Department requiring the door to be unlocked? A. To be kept unlocked.

Q. Then you sent some one to see whether or not that was being done? A. Invariably the inspector was directed to follow it up; but I think I should add that as a matter of fact the policy of the Department with reference to that particular violation has been to require immediate compliance before the inspector left the premises.

Q. That is what I am coming to. Did not the inspector first see that the doors were unlocked? A. Those were the definite instructions given to our inspectors, and I have no definite information which would lead me to believe that the instructions were not followed.

Q. Then was the matter reported in addition to the authorities? A. Precisely. In addition to the order which the inspector gave at the time, and insisting on the compliance, a record was made, and a formal notice sent.

Q. Of course it was easy for an inspector, upon entering a factory, to find out whether the doors to the stairways are locked or unlocked? A. That is true.

Q. Since the Asch fire or Triangle fire, a different course has been adopted; he immediately communicates with counsel? A. Yes, sir.

Q. That is you have a lawyer assigned to your Department here in New York city? A. We have a lawyer in our employ.

Q. What does he do in that case? A. He immediately prepares his case from the evidence furnished by the inspector, if sufficient to justify that course, which is not, however, always the case.

Q. You mean information which requires the factory owner or manufacturer to be brought into a police court? A. Precisely.

Q. And now you bring a man right into the police court, if you find the doors locked? A. That has been our practice.

Q. In the last few months? A. Yes, sir.

Q. And when you find that the halls which lead to the fire-escape or staircase are blocked or full of material, what do you do? A. Order them to be immediately cleared up.

Q. The inspector does that? A. And in addition a formal notice is served on the factory owner.

Q. What inspections are made to see if the place is clean as required by law? This the inspectors are required to do, and also to see that the sanitary conveniences are as they should be? A. The inspectors.

Q. The same inspector? A. The same inspector covers all the conditions that are subject to the Labor Law, when he originally inspects a place.

Q. And suppose he finds a place to be filthy, what does he do, order it cleaned? A. It depends upon whether or not the premises occupied come under the provisions of Section 94 of the law, in which event he may apply the provisions of Section 95, provided, however, that the article or articles manufactured in said establishment happens to be enumerated in Section 100.

Q. Section 94 applies to a tenant-factory? A. A tenant-factory?

Q. Some parts of it are used by individual persons? A. For manufacturing.

Q. Yes.

Commissioner PHILLIPS: That does not mean by the owner.

Mr. ELKUS: That is a so-called loft building?

The WITNESS: Yes.

Q. That requires that the toilet shall be kept in proper condition, that the building shall be well drained, that the plumbing be in a clean condition, and all the appliances in a clean, sanitary and safe condition; also properly lighted. Section 95

provides that if an inspector finds evidence of a contagious disease, he shall place an unclean label; that is one penalty you have. A. That is our summary method of dealing with unsanitary conditions. That is an effective method of stopping it — a very glad to furnish them.

Q. You are the only person by law allowed to remove an unclean label? A. Or whoever we may designate.

Q. Have you ever had to affix the unclean label on any articles in the last year? A. Yes — well, pardon me just a minute. During the year 1907, we tied up three hundred and fifty establishments under that provision of the law.

Q. How long? A. Until the condition had been remedied.

Q. I mean how long was that, can you tell me? A. Some times half a day, and in some instances several days.

Q. Now, in this case, when you did that, was that the result of a complaint that had been made by some one, or was it done in the ordinary course of inspection? A. The observation of the inspector invariably led to that action. May I be permitted to give the record for four years?

Q. Surely. A. In 1908, the same course was followed in 446 establishments. In 1909, the same course was followed in 399 establishments, and in 1910, in 469.

I have not at hand the figures for 1911; if I had I should be very glad to furnish them.

Q. That includes the entire state you are giving me these details for? A. As a matter of fact we rarely have occasion to employ the drastic means and methods outside of Greater New York.

Q. Now, do I understand you correctly to say that where you have applied this it has been the result of the inspector's ordinary inspection in the ordinary course of his work and not as the result of some complaint by some outsider? A. I think I should state in that connection that many of our inspections are made upon complaint.

Q. That is what I am getting at; that these conditions are not brought forth by your own inspectors in their ordinary course of work, but are because complaints are made to the Department and then upon investigation are found to be well founded? A. I

think also, Mr. Counselor, that the facts are that in a majority of cases these places were tied up as the direct result of our inspectors' observation.

Q. I know that, but the observation was caused by somebody on the outside calling it to your attention? A. No, sir; except in some cases.

Q. Except in some cases? A. I can very readily give you the record.

Q. I do not care for details if you tell me that is not so. Now, of course, that is a very small fraction of the number of factories. Now, where an inspector finds these conditions, such as uncleanness, what does he do outside of affixing a notice of "unclean" to the articles manufactured? A. He has nothing to do with the articles manufactured except to tie them up and apply the label.

Q. Put this label on them? Has he a right to put this label on all classes of merchandise? A. No, only such as are specified in section 100.

Q. And what are they? A. Shall I read the entire list?

Q. No, there are some exceptions, I think; such as human hair goods? A. The exception is by reason of the fact that it is not included in the list.

Q. Yes, I understand that. What subdivision of Section 100? A. Subdivision 1.

Q. Commissioner, do you have any co-operation with any of the other Departments of the state or of the cities with reference to what you discover in factories? A. We have recently been receiving communications from the Fire Commissioner regarding certain conditions which his inspectors or representatives have discovered.

Q. Well,—I do not know whether you were here this morning or not? A. I was.

Q. Did you hear Fire Chief Kenlon testify? A. I did.

Q. You heard him say that he had sent a thousand, I think, or more complaints or notices of violations of law to your Department and had not even received an acknowledgment of it? A. He stated that he had sent 400, I think.

Q. I have forgotten how many to your Department — 401 is the correct number? A. I regret to have to disagree with

Chief Kenlon's testimony regarding the matter of acknowledgment — receipt of communications. I am under the impression that Chief Kenlon was unaware of the fact that the communications addressed to us invariably came from Commissioner Johnson, and that our acknowledgements invariably were addressed to Commissioner Johnson. Moreover, let me add that whenever a complaint is filed in our Department, from whatsoever source, wherever it may come from, it is not only acknowledged, but the result of our investigation of the complaint is also sent to the party who files the information.

Q. Do you know whether or not in these cases any action has been taken by your Department as the result of such information? A. I would not undertake to say whether or not that is the case, for these matters go directly to the Chief Inspector.

Q. His statement was that the conditions had not been changed. You cannot say whether that is so or not? A. Perhaps my memory does not serve me very correctly, but I understood him to say he had no knowledge as to whether the conditions had changed.

Q. We may be both in error or you may be right and I may be wrong, be that as it may, when information of that kind is received, you say it goes to the Chief Inspector here in New York city, in this particular case, and he is supposed to have it investigated, and if found to be correct, to remedy it by instant order, and then by a prosecution of some kind? A. If our orders, where we have authority to issue orders, are not complied with, if we are unable to prevail upon the occupant, if the responsibility is his, that the law should be complied with, then we have no alternative but to institute proceedings to punish him criminally.

Q. Now, take the case of the Triangle fire. You are familiar with that fire, are you not? A. I am in a general way.

Q. Did you ever examine the building either before or since the fire? A. I did not, personally.

Q. What responsibility did your Department have with reference to the building? A. The general responsibility that we have with reference to all buildings where there are manufactories.

Q. Simply to see that the law was complied with with reference to locked doors and with reference to partitions? A. We have no authority with respect to partitions.

Q. No authority over partitions. With reference to egress and fire-escapes and to rails on stairways? A. Yes.

Q. Now, it has been stated that the doors leading to the stairways in that building were locked, and that egress by means of the staircase for that reason was cut off. Do you know that to be a fact? A. I do not know it to be a fact except as I read it in the newspapers, the newspaper accounts and in some of the testimony given at the Coroner's inquest.

Q. Did you have any investigation made to ascertain whether or not that was a fact? A. Not after the fire; no, sir.

Q. Did you ascertain whether or not the aisles which led to the fire-escapes were blocked or not at the time of the fire? A. You mean subsequent to the fire?

Q. Yes. A. I did not.

Q. Have you had any investigation of your Department to see whether or not any of your Inspectors were at fault in that matter? A. Our inspector who covered the Asch Building about a month before the fire, was before the Grand Jury.

Q. Yes, I understand that. A. (Continuing) And I have no information regarding that subject beyond what I assume you are possessed of, Mr. Counselor.

Q. You, of course, you had no responsibility I take it, at all, in your Department for anything that happened at that time that ought not to have happened? A. I would not say that exactly. If it could be proven that our inspector had failed to properly perform any duty when he was in that building I should say we had a responsibility.

Q. Of course, he had no way of telling what happened after he left the building? A. Precisely.

Q. Now, don't you find, Commissioner, that there is a divided responsibility between the Labor Department in the State, the Building Department of the city, or the Fire Department of the city and the Health Department of the city with reference to these matters? A. We were not cognizant of any such condition in our Department until the decision rendered in 1903, I

believe, in the case of the City of New York against the Trustees of the Sailors' Snug Harbor. Up to that time our Department assumed and exercised authority with respect to conditions generally that are covered in our Factory Law. Since then we have not attempted to enforce the provisions of the law relating to fire-escapes. So far as having any difficulty with either the Bureau of Buildings or the Department of Health, I am not aware of any such condition at this time, nor have I been cognizant of such a condition at any time since I have been in the service, a matter of twelve and a half years.

Q. Well, it is a fact, isn't it, that there is a divided responsibility in buildings with respect to fire prevention and fire-escapes in the broad sense of the term, and sanitary conditions inside of it, between three or four Departments of the city and state? A. I think it is true that there is concurrent or coincident jurisdiction with reference to certain things.

Q. And when any catastrophe occurs each Department finds it has no responsibility, and if any fault occurred it is the fault of some other Department? A. That may possibly be true.

Q. Let me give you an illustration. For instance, your Department has authority to order the removal of any material which blocks the way to a fire-escape, but has no authority to order the removal of matter upon the fire-escape itself, that is true, isn't it? A. Under a strict interpretation of the law that is true.

Q. Well, does your Department attempt to control what is on the fire-escape or other conditions? A. No, we immediately apply to the Police Department.

Q. In other words, you go to another Department, and your Department makes an inspection which is practically covered by the Fire Department inspection in the City of New York and also covered to a certain extent by the Health Department, and to another extent by the Building Department? A. So far as the Health Department is concerned, if my information is correct, it does not attempt any systematic inspection of factories; it only inspects upon complaint. As a matter of fact the policy of the Department of Health with respect to complaints that are sent to it, regarding conditions in factories, is to refer them to us.

Q. Well, leaving out the Health Department, the others act without complaint, don't they? A. According to the testimony of Superintendent Miller their policy has been to wait until a complaint is filed.

Q. That is after construction? A. Yes.

Q. And your Department therefore is the only one outside of the Fire Department which has authority to act, which inspects, and when it inspects you cannot enforce it because you have no authority over fire-escapes? A. Let me say there, Mr. Counsel, that we do observe conditions with respect to fire-escapes, and perform what I would call extra legal duty.

Q. Well, the result of your extra legal duty where there is a complaint is to refer it to the Department of Police? A. The Department of Buildings.

Q. The Building Department. If the complaint is with reference to insufficiency or inadequacy of the escape? A. Yes; if it is with respect to the material upon the fire-escape proper then it is to the Police Department.

Q. Of course, before a complaint reaches the proper Department after an inspection that would take quite some time before it goes through your office at Albany and then down to New York or to some other city; it takes quite a length of time? A. Not necessarily. I have in mind just one case that I happened to glance over some months ago, where our inspector had reported a condition which should in turn be communicated to the Bureau of Buildings and from the date of his inspection and report until the date of a response from Superintendent Miller's Department advising us that our complaint was sustained and a violation filed against the premises, only seven days had elapsed.

Q. That was an exceptional case? A. I rather think it may be an exception; but it simply proves that it can be done quickly.

Q. It can be done? A. Yes.

Q. Now, Commissioner, would you favor a Bureau of Inspection of some kind for the entire State where all inspections can be made by one set of officials and reported to the appropriate department? A. May I ask a question to see whether I understand this question?

Q. Surely. A. Do you mean by that a Department or Bureau of Inspection as apart from the agency of enforcement?

Q. Either as a part of your Department or as a separate Department without power to enforce orders, the Inspectors simply to report facts on a schedule of information which would be given them? A. That is a very broad question and a new idea, and I would hesitate about committing myself.

Q. I would be very glad if you would consider it, and I will call upon you later. A. Yes.

Q. It is apparent here from what has been brought out in the public hearing and what the Commission has learned in its executive sessions, that there are a number of inspections that might not necessarily cover the exact same thing, although apparently they do, when you tell us of your extra legal inspections they do in a great part, but it is in the main without co-ordination or co-operation, and it has occurred to the Commission that perhaps one solution of this difficulty would be a Central Bureau of Inspection, where inspectors who were trained should get the facts. I would be very glad if you would consider this and either give me your opinion in writing or come before the Commission at some later time and give it to me orally. A. I think, Mr. Counsel, that it would be better if I were to furnish you my opinion on that question in writing.

Q. Very well, I will be glad to have it. A. Then I would be very glad to appear before the Commission for such questions as they might wish to propound.

Q. If you will do that within the next two or three weeks I would be very glad to have it. Commissioner, are your inspectors competent? A. Generally speaking, yes; some are more competent than others.

Q. And have you an adequate force of inspectors? A. We have not.

Q. This present legislature which just closed increased your force I think by about 20? A. It increased the force; I am speaking now of the effective field force.

Q. Yes. A. It increased the effective field force from 52 to 68.

By Commissioner PHILLIPS:

Q. The statute now authorizes ten more than the appropriation takes care of, doesn't it? A. No, not exactly; eight more.

The statute permitted 85 inspectors in addition to the Chief Inspector, nine of which, however, are not in the class of the ordinary field inspectors; eight are supervising inspectors and the ninth is to be a mechanical engineer—special qualifications for the position, so that we might have 76 field inspectors if money had been provided to pay that number. Money has been provided to enable us to employ 68, eight less than the total permitted under the law. Is that clear?

By Mr. ELKUS:

Q. Yes. Have you any suggestions to make to the Commission as to any additional legislation, any amendment to the Labor Law or any remedial legislation? A. That is a broad question; there are several points that I would like to speak upon, but it seems to me, if I may be permitted to suggest, that the matter of such amendments is one that requires very careful thought and great deliberation. I do not think I should undertake to advise the Commission now at this time what should be done. There are some points, however, that we can speak upon offhand.

Q. I would be very glad if you would think over this, and you can make any written recommendations or suggestions you choose. We would be very glad to have them. A. Now, I think, that from the questions that Counsel has addressed to me, I should differentiate between inspection and enforcement of the law. I quite agree with Counsel on that point. As a matter of fact in the prosecution of our work we do differentiate between inspection and enforcement; we aim, as I stated at the outset, to make at least one general inspection of each establishment to see whether or not the conditions therein are in compliance with the law. A record is made, a formal record is made of each inspection. Subsequent inspections are for the purpose of enforcing the provisions of the law, which, upon the first inspection are found to have been violated or neglected by the occupant.

I think that one inspection a year for certain purposes is sufficient. I mean by that that one inspection to get at the real character of the establishment is sufficient. Subsequent inspections may be and are only necessary in a great many instances to show

that the establishments against which orders have been issued are brought up to the standard set by law.

Q. Commissioner, were you present when some testimony was given as to conditions which prevailed in factories in 89 Ridge Street in this city? A. I was not; I came here this morning.

Q. It was testified that in order to obtain entrance to these factories, people had to pass through an open alley and then through another alley or courtyard, and through another alley and up a stairway in order to get entrance, and photographs were introduced in evidence showing a great mass of material that was in the factory, and the crowded condition, and proof was given that this had existed for some time. Now, of course, all those conditions under your testimony would have been reported,—if not under the authority of your Department, to the proper Department for remedy. They ought not to exist? A: They would have been reported.

Q. Would they not have been? A. Were they not reported to us?

Q. I don't know. I say if your inspector found them he would have reported them, wouldn't he? A. Of course, but I appreciate fully that such conditions may be discovered any day in a community such as this with upwards of 32,000 factories, and with about 15,000 tenement houses also subject to our inspection.

Q. Well, if you had adequate inspection of factories this condition would have been discovered and not be permitted to go on for six months, wouldn't it? A. I think so.

Q. And the fault lies either with the inadequacy of inspection or because by the insufficiency in the report of the inspectors or of the incompetency or negligence of the inspectors themselves? A. It must be one or the other.

Q. One or the other? A. Must be.

Q. Well, I bring that to your notice on the question of whether one inspection a year is sufficient? A. I trust that I am not misunderstood by the Commission. I said that one inspection a year, in my judgment, is sufficient to give us a fair and comprehensive idea of the character of the establishment; in other words of the character of the establishment and the individual or individuals conducting it.

Q. Well, an inspection of this building where the defects are in great part structural, would, of course, disclose the nature of the factories carried on there, and then such inspector ought to inspect it frequently under your rule? A. Undoubtedly.

Q. How do your inspections in New York City compare with those in England, if you are familiar with them? A. You mean as to methods?

Q. Yes. A. I think there is very little difference.

Q. Do they only inspect once a year? A. They do not even do that. It was my privilege to visit England last summer, I mean in 1910, and I was told by the Superintendent of Inspection in more than one district that they were in arrears with their work, which meant that they were unable to cover the entire territory within one year.

Q. How about Germany and France? A. I cannot answer as to the adequacy of inspection of those countries.

By the VICE-CHAIRMAN:

Q. I suppose this great number of manufacturing establishments here have sprung up and died out again coming and going just as they chose? A. I suppose so, I don't know.

By Commissioner DREIER:

Q. May I ask whether you have any control or supervision in your Department over these rear factories that we have gone into in Ridge Street? Could you close them up because of their having two alley-ways to get out through? Is that your business? A. No, for the reason —

By Mr. ELKUS:

Q. You could report it to the Building Department or the Fire Department?

By Commissioner DREIER:

Q. You could close it up because of insanitation in the building itself? A. Provided they were engaged in manufacturing any article enumerated in section 100; we could do that.

Q. Yes. A. Moreover, if a building is located in the rear of a tenement house, it would become subject itself to the provisions of Section 100 and would require a license from our Department permitting its use for such manufacture.

By Mr. ELKUS:

Q. Of course the first inspection would discover that? A. Yes.

Q. And that would be very easily remedied? A. Yes.

Q. Now a committee of citizens in New York City have examined some 1,700 factories and discovered within a short time 3,500 violations of the law, 700 of which were for barred passages to fire-escapes and matters of egress and locked doors. These were, of course, not discovered by your inspectors or they would have remedied them? A. Possibly. May I ask you, Mr. Counsel, about the testimony of Superintendent Miller this morning, that they directed the removal of obstructions, and the order was complied with, and they returned a few weeks later and found the same conditions exactly. May I direct your attention to that? Now that frequently happens.

Q. That is it. Now, what remedy have you for a situation where your inspector goes in and finds a door locked leading to the stairs and he orders it opened or unlocked, and that is complied with and he comes within a week and finds the same condition? A. It is a subject of prosecution.

Q. What kind of prosecution? A. Criminal.

Q. That results in a fine if a conviction is had? A. Yes, sir.

Q. Have you ever had such a conviction? A. Yes, sir.

Q. How many? A. I cannot give you the number offhand, but a very recent one resulted in a conviction and a fine of \$50.

Q. In this city? A. Yes, sir.

Q. Is that the only one you recollect? A. Oh, no, but I cannot give you offhand any such detailed information, but I will be glad to furnish it.

Q. That was since the Triangle fire? A. Yes, we have had some since, and we have had instances of criminal prosecutions for such violations before the Asch fire.

Q. Now, have you given any study yourself to the question of ventilation? A. I have given no special study to that subject. I have been endeavoring to learn a few things concerning it.

Q. What does your Department do with reference to sufficient ventilation for working people in factories? A. The present law is very inadequate and unsatisfactory. We have been able to accomplish some beneficent results because those men whom we have issued orders to have been willing to comply with our orders rather than to oppose them. Where we have been opposed under the present law, we have been defeated, for it does not prescribe a standard, and the objection has been raised,—and I feel that there is considerable reason back of it,—that a standard of ventilation should not be left to the judgment of one individual, namely, the Commissioner of Labor. I feel the pressure of that opinion and I sympathize with it, and consequently that has halted the work of the Department with respect to that particular subject, until we can get a legislative and definite pronouncement or legal enactment as to what standard of ventilation it is possible to establish in factories.

An effort was made in 1910 to secure the enactment of such a measure. I had something to do with it.

Q. What did that briefly provide? A. It provided for the establishment of what I term the qualitative standard of ventilation or air purity. Considerable opposition developed; there were persons who wanted the quantitative standard. They wanted a standard that would prescribe the introduction of a given number of cubic feet of air, per person per hour.

Q. There is no standard to-day? A. There is no standard to-day.

Q. Isn't it required that a certain number of cubic feet of air space should be allowed for each operative? A. That is one thing; that is only the cubic area, not the quality of the air for ventilation. That is a distinct provision of law and has nothing at all to do with the question of ventilation.

Q. What is your own opinion upon the subject? A. I am coming to that.

Q. After the study you have given to it? A. I believe we should have a law containing an alternative standard, quantitative

or qualitative, leaving to the factory owner or operator, call him what you will,—leaving it to him to choose which of the two standards he prefers to conform to. That was a standard proposed in a bill that was introduced in the session of 1911, but the bill failed of passage. That standard or that bill, rather, had the approval of some of the best known experts on ventilation in this city.

Q. Did the bill pass either House? A. It did not. It was not reported out of the Committee in the Assembly, but the reason for that, perhaps, should be stated: the Committee on Labor and Industries, when the bill was introduced, was defunct. In other words, everything had gone into the hands of the Committee on Rules.

By VICE-CHAIRMAN:

Q. In 1910? A. No, sir; 1911.

By Mr. ELKUS:

Q. The bill came in too late in the session? A. Came in too late in the Assembly. It was reported out of the Senate Committee but did not get any further than what is known as General Orders.

Q. Now, Commissioner, have you any other statement or suggestions that you desire to make to the Commission at this time? A. May I ask, before answering the question, Mr. Counselor, am I to be called again?

Q. Well, I think we will call you again at some later period of the session, because, when we have finished our own inspections and have certain facts in evidence, we shall want expert opinions, and we shall call upon you for it. A. If my opinion is desired, I shall be very glad to express it when the proper time comes, on methods for fire protection—fire prevention.

Q. I should be very glad to hear that. Now, I think we should like very much to hear that point now, what you have to suggest on the question of fire prevention? A. Not so much the question of fire prevention, but rather the minimizing of personal hazards in factories.

Q. Very well. A. I believe that a most effective plan to safeguard lives in factories when confronted by danger from fire, is to have the building divided into two sections.

Q. (Interrupting) That's a fire wall? A. (Continuing) From the cellar bottom, not only to the roof, but above the roof, dividing it into two sections with openings from the one side to the other, properly protected by fire doors. I think that offers the best solution. Where that is not deemed desirable or feasible, I think I should endorse the statements of Superintendent Miller and others, who have testified here this morning, regarding the tower stairs — the tower stairs, without direct connection from the tower into the occupied parts of the building. In other words, the adoption of what is known as the Philadelphia Tower Fire-escape. Moreover, I think that where articles of an inflammable nature are manufactured, or where goods that may readily or easily burn are manufactured, provision should be inserted in the law under which such business could not be engaged in above the fifth story.

Q. What would you include in inflammable materials? A. Anything that readily burns.

Q. Such as clothing? A. Yes, especially the cotton variety of goods. Woolen goods do not burn as readily as the cotton goods. We know, as a matter of fact, it was the combustion of the material in the Triangle Waist Company's factory that caused the loss of life. As I am told the building itself did not suffer much.

Q. What is your opinion about the sprinkler system? A. I think it is a most excellent device.

Q. Of course, your Department has nothing directly to do with these methods of prevention of fire? A. No.

Q. It has been suggested by the Fire Chief, who was here this morning, or by Fire Chief Croker, that where there were insufficient exits, or weren't sufficient means of egress in case of fire, or other things to prevent loss of life, that some one should be given authority, not to punish by court proceedings, but to compel the closing of the building until the dangers were remedied. What do you say about that? A. If the exercise of such authority as that would not be subject to interference by injunction, I should think it might be a very excellent way, but if there

is danger that the Courts might intervene, I am not sure that it would be very effective.

Q. Of course, you can't stop the Courts from issuing injunctions,—not even the legislature. A. Well, my point is this: if that danger exists, it might be advisable to look for some other remedy.

Q. Is there anything further, Commissioner, that you would like to be heard about? A. Just one thing that I want to say with reference to the enforcement of law. I have felt that the Courts are not as responsive to the demand for proper enforcement of the law as we might wish them to be. The experience of our Department has been rather depressing. We have repeatedly gone into Court with perfect cases, so far as the evidence was concerned, and where conviction could not be escaped, only to return with a suspended sentence. The moral effect of a conviction without a penalty upon the average manufacturer, is nil.

Q. What is the reason for this attitude of the Courts? A. I cannot explain it. Our Department has repeatedly taken them to task in its annual reports, but without avail.

Q. These prosecutions were in minor criminal courts, were they? A. They were instituted in the Police Court, and disposed of in the Court of Special Sessions here in New York, and in Police Magistrates' Courts having the Court of Special Sessions jurisdiction in the cities and towns of the State.

Q. It has been suggested here—I think you were present when Commissioner Miller testified that the number of employees in a building should be limited by the stairway capacity. What do you think about that? A. I think that is a correct idea, for it is useless to depend upon the stairs to furnish means of exit for the population of the building, if the population is so great as to clog the stairs, as only a certain number can get upon the stairs and enter the hallways. The minute you crowd one or two more, you are creating a condition that is almost as bad as the condition in the burning building itself.

Q. Do you believe it would be practicable where large numbers of men and women are employed to prohibit any employee from carrying matches, so as to prevent smoking? A. Absolutely.

Q. It is practicable? A. Why not? I will go further and say that smoking in a building—in any part of a building where they are manufacturing inflammable material, should be made a criminal offense, punishable by imprisonment or a heavy fine.

Q. That would stop the cause of a great many fires, would it not? A. I fully believe it would.

Q. And also do away with a great many other unsanitary conditions in buildings—bad air? A. Yes.

Q. How about eating meals close to the work space, or at the work desk? A. I think that that also is a matter which should be regulated, for hygienic reasons.

Q. Disease is carried that way very frequently, is it not? A. Yes, I believe that in certain factories, where they handle poisonous materials, that eating in the workroom should be absolutely prohibited.

Q. Wherever they handle materials which are used for wearing purposes, I suppose it would apply? A. I believe that eating in workrooms should be regulated, no matter what the industry is.

Q. Should not be permitted, practically? A. I would not go that far, in all factories, but it should be regulated—properly regulated.

Q. I want to ask again, because it is a very important subject. You believe it would be perfectly feasible to prohibit the carrying of matches in any manufacturing establishment by employees? A. I think so. I know, as a matter of fact, that in one of the largest establishments that I visited in Scotland, employing between eight and nine thousand men, not a man entered the yard who wasn't examined in the morning and again at noon, to see whether or not he had matches.

Q. Did the employees object to this? A. Not at all; they took it as a matter of course.

Q. And each one was examined to ascertain if he carried any matches? A. Yes, sir.

Q. Do you know, as a fact, that in the department stores in this city, they enforce that same rule, with great success? A. I am very glad to know it; I did not know it.

Q. I was told by the proprietor of one of the largest establishments that they not only enforced the rule, but have no trouble

in enforcing it. That would have to be made a statute though, and a mandatory statute? A. If the idea is to punish the one who violates it, yes.

Q. What would you suggest with reference to the doing away of rubbish and refuse material that accumulates on floors of manufacturing establishments? A. With an adequate force, the present law we have is fairly sufficient.

Q. In other words, as far as your Department is concerned, you believe that most of the evils spoken of could be remedied, if you had an adequate force to enforce the law? A. I haven't the slightest doubt.

Q. That comes back to my other query, which you are going to answer in writing? A. Yes.

Mr. ELKUS: Any questions?

By the VICE-CHAIRMAN:

Q. One idea I had in mind is as to what extent physicians are required to report cases of industrial poisonings? A. That law is just now in effect, and we have not had any returns to date.

By Commissioner DREIER:

Q. What is your standard of sanitary conditions in toilets? What is the standard required by law? A. Well, we can't prescribe any standard that can be described in law. Sanitary conditions are relative terms. What is sanitary to one is quite apt to be insanitary to another, but ordinary cleanliness that appeals to the common sense of our inspectors, trained as they are in inspection work, is the standard set. It may not be as high as the standard that some who have not had experience in this kind of work, would set.

Q. Well, now, as a matter of fact, isn't it impossible to maintain the standard — sanitary standard, without the co-operation of the workers in the establishment, and can you get that co-operation? I mean, could you in any way suggest a method by which the workers could report to the factory inspector violations of sanitary conditions? A. I fear not. I fear that would be

impossible, Miss Dreier; for, as you well know, many of the employees themselves are responsible for insanitary conditions that develop in their places of employment. They have habits, especially where they eat in the establishments.

Q. Well, of course, among the unorganized workers, there is no possibility of creating a sanitary committee—for instance, of the workers in the factory? A. I should say it would be very difficult.

Q. That means co-operation? A. That means co-operation, and without organization you cannot get co-operation.

Q. Could you get it through organization? A. I should think you might, but that's a matter you can't get at by law.

By Commissioner PHILLIPS:

Q. What do you think from your experience,—from the experience of your inspectors,—is best to do in regard to bad conditions they find in factories, even though they do not violate the law? A. Well, I am glad Commissioner Phillips asked the question. That is a very important question that we often have to consider. There are many things which our inspectors observe in these establishments, which do not constitute a violation of any provision of our law, nor do they constitute a violation of the provision of any code that we are familiar with. Some of our inspectors call our attention to such conditions. I have in mind now one particular class or group of cases brought to my attention not long ago, where the hoistway is located in a space between the outer door and the foot of the stairway, leading up into the building. We regard that as creating a very dangerous condition.

In some instances they have what we call collapsible iron gates, that they stretch across the foot of the stairs, and fasten while the hoist is in operation. It might well happen that while such a gate is closed, fire should break out in the floor above and the persons occupying that floor would find themselves in a trap. My attention was called to conditions of this kind by one of our inspectors, some time ago, and I decided that when the opportunity came, I would bring that to the attention of your Commission. These hoists or elevators, as they might be called, have

been so located, with or without the consent of some city Department, and certainly create a condition which, in my judgment, is dangerous and should be considered and remedied.

By Commissioner DREIER:

Q. For instance, in the question of locked doors: would it be possible — feasible to have posted on the walls of the factory that no locked doors are admissible? Is that done? A. As a matter of fact, unless it is done, some one is derelict, for the law provides that there shall be an abstract of the law itself posted upon the walls of every factory.

Q. Might it be wise to have a provision in the law, so that the law should be posted in large type, so the people can read it, and in the languages of the employees who are employed there, and not in dark corners? A. I may be entirely in error in this opinion, but I shall express it. I don't think that the posting of such a placard would have any bearing upon the question of whether or not the doors were locked. The doors are locked, not by the employees, if they are locked at all, but by some one who is in charge of the establishment.

By Mr. ELKUS:

Q. Some one in authority? A. Some one in authority. Now, then, I think that this question should be considered by the Commission as to the right of the proprietor of a business to protect his property against intrusion, and can that be done without jeopardizing the lives of those who are called upon to work in those places? If you want my personal opinion as to that, you can have it. I believe that every manufacturer has a perfect right to protect his property against intrusion. I also know that it is a simple matter to equip doors with fasteners which act as locks from the outside, but are mere latches from the inside.

Mr. ELKUS: There is a better one than that, I am told. You can't open it from the outside at all, except with a key, but by a push from the inside you can open it.

The WITNESS: Yes, that is a door that some one — if I recollect, it's a door or a fastener that some one invented after the

Collingswood fire in Ohio. I may be mistaken as to that, but I think it is where that was first brought out. It was after that that I first saw it. Then again I had to add another word.

We have heard much about doors opening in, as against the door opening out, and it has been intimated that that is invariably a source of danger. In other words, that the door that opens in is invariably a source of danger. Now, I must dissent from that opinion emphatically, especially in buildings where the hallways are so narrow that the door, if it were to open out, would be a positive menace to those coming from the upper floors down through the hallways.

Q. What is the matter with the sliding door? A. I was coming to that. That is my remedy. The remedy for that is a sliding door, which cannot be blocked, cannot be interfered with; and may I say just another word with reference to the complaints that Chief Kenlon spoke of this morning. In some of the complaints referred to us by the Fire Commissioner, reference is made to doors opening inwardly,—our inspectors have observed conditions in some of these establishments, and they report back to us that it would be impractical to change them, because if they were changed they would create the condition that I have just described — worse, in fact.

By Mr. ELKUS:

Q. Well, they could be made into sliding doors? A. Yes, but we have no authority to require them.

Q. You have either authority to make them open outward or of giving them the option? A. We have authority to compel them to open outward, but we have no definite authority in this Penal statute to agree to any compromise.

Q. Yes, but you can see they do make doors open outward; then if they say it's practically impossible or difficult—— A. (Interrupting) We can suggest the other; yes, that is true.

Q. Isn't it possible, also, to make what is called the vestibule door? Build a box inside the room so as to make the door open outwards? A. Yes, that could be done; that could be done.

Q. That would permit you to have doors open outwards and do away with the crowded hallways? A. Possibly; but the cor-

ners of the vestibule might themselves be an element of danger.

Q. Yes, but they wouldn't be as bad as a door opening inward, would they? A. I am not sure about that.

By Commissioner PHILLIPS:

Q. That is, if the crowd was going to the door and a person got in that pocket——

Mr. ELKUS: The crowd would get out of the pocket and he would go with it. He might get there for a minute and get out again. Anyhow, it would be better.

Commissioner PHILLIPS: Better than having the hall blocked?

Mr. ELKUS: Yes.

The WITNESS: One more thing I think we should have for the record at this time: we have already stated that we have no authority to deal with conditions that rise by reason of the internal arrangement of the establishment by the occupant, except insofar as the ordinary alley-ways are concerned, leading to the fire-escape.

By Mr. ELKUS:

Q. That is one of the troubles, Commissioner, which is quite apparent, that your Department's authority is limited, and the Building Department's authority is limited, and Fire Department's authority is limited, and the Health Department's authority is limited. Now, when you consider your recommendations, we would be very glad to have you suggest to us what should be done, to put under one head—one responsible head, the authority to remedy these defects which are pointed out. A. I shall be very glad to do so. Is that all, sir?

Mr. ELKUS: Any further questions?

(No response.)

G. I. HARMON, called as a witness, and being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. What is your name, sir? A. G. I. Harmon.

Q. Are you an inspector in the Labor Department? A. Yes.

Q. How long have you been there? A. Fifteen years last August.

Q. How long have you been located in New York City? A. I have been here winters for the last five, six or seven years—I can't just tell you.

Q. Winters—where are you in the summer? A. Well, all about the state.

Q. What part of the state? A. All over, wherever they send me.

Q. Have you been assigned to a particular locality in the City of New York? A. Always, that is from one time to another.

Q. How long are you in one particular locality? A. Long enough to cover it.

Q. And then you go to another? A. Yes.

Q. In what section of the city were you located in the year 1911? A. 1910 and 1911, you mean, of course?

Q. Yes. A. I think my first assignment was on the corner of Astor Place, down Lafayette Street to Fourth Street; across through Washington Square and back up.

Q. How many blocks was that? In that area? A. Nine, I think—possibly more, but I am not quite sure.

Q. And about how many buildings in the nine blocks? A. I cannot tell you.

Q. How many factories in the nine blocks? A. I cannot tell you that.

Q. How long were you inspecting those nine blocks in the years 1910 and 1911? A. I would have to refer to my books to tell you.

Q. Where are your books? A. At my home.

Q. Well, don't you keep your books in the office of the Factory Inspectors? A. No, sir.

Q. Are you allowed to keep all your books at home? A. I keep my original books in my office always.

Q. Well, is that permitted by the rules of the Department, that the official records, original records are kept away from the Department office? A. That is the way we do; I don't know anything to the contrary.

Q. And how long did it take you to inspect these eight blocks? A. It is impossible to tell you without referring to my books.

Q. All winter? A. No.

Q. Did it take two months? A. I presume that it took me — now, this is simply a guess, two months.

Q. What were you doing the rest of the year 1910 and 1911? A. When I finished that block I was put into another section, simply transferred to another section. I had from 19th Street and Broadway and 14th Street and Sixth Avenue.

Q. That was the next section? A. I think that was the next section.

Q. Well, now, we will say that it took you two months to examine those eight blocks. Was that the first time you had ever examined those eight blocks? A. That was the first time. I had worked a part of the lower section before.

Q. Now, when was it that you examined the Triangle building prior to the fire? A. The 27th of February.

Q. 1911? A. 1911.

Q. Now, when did the fire take place? A. Some time in March; I don't recall the date.

Q. Then you examined the building within two weeks of the fire or so? A. Well, I don't know whether it was two months or two weeks, but it was a very short time.

Q. Within a month we will say? A. Yes.

Q. What examination did you make of that building? A. I made a regular inspection of each factory in the building.

Q. What did that consist of? What did you do? A. I first go to the office and introduce myself. I get the data that I have to have — the number of people employed, men and women. If they have children there, I want to get their certificates, see their register, ascertain all the information in the office, then get someone to go with me and go through the factory. If they

have machinery, look at the machinery. In the Triangle building underneath the table I found cuttings there, and then I looked into the sanitary conditions, examined the toilets, to see that there are enough of them, and that they are clean, and the number employed there, to see if there are enough of them. I see that they have a dressing room if they have girls employed. If they have a fire-escape, I see that the windows to the fire-escape are open and free, raise them and try them. If there are doors to the halls I open the doors and see that they are unlocked. I look into the general sanitary condition of the entire building, the care of sinks and water, and see that their drinking water is all right.

Q. How long did it take you, for instance, to examine the Triangle Waist building. They have three lofts? A. Yes.

Q. How long did it take you? A. Possibly an hour and a half to two hours.

Q. And were any of aisles which led to the fire-escapes blocked by material? A. No. The aisles that lead to the fire-escape, you mean? Between the machines, you mean?

Q. Yes. A. Not that I recall. If there was, I made a note of it. I may have made a note of it in my book, and I may have not. The only way I could tell is by referring to my book.

Q. Were any of the doors locked which led to the stairs? A. They were not.

Q. Did they have locks on them? A. Yes.

Q. Before you went around to examine this factory, you went to the office and asked for someone in authority and told them your business and what you were there for? A. Yes.

Q. So that they had plenty of time to remedy any defects that existed temporarily while you were there? A. Yes.

Q. So, as far as the locking of the doors was concerned, or even material in the aisles, that might have been hastily cleaned up or remedied for the moment? A. That might have been.

Q. Well, don't you think it would have been a better and a fairer examination if you didn't tell them who you were, and just walked through? A. Well, in the first place, it is sometimes difficult to get into a place of that kind without telling them who you are.

Q. Well, I mean if you had no difficulty in getting in? A. Well, you have to get a certain amount of information.

Q. Do you mean about the number of employees, how many men and how many women and so forth? A. Yes. You go into a perfectly strange shop that you were never in in your life, and you would be pretty near lost unless you asked questions of somebody.

Q. You wouldn't be lost in trying to find where the staircase was, and whether doors were locked or not? A. You have got to find a lot of other things; you have got to find the toilets and the dressing rooms, and you have got to find if they have children employed, you have got to call upon and find the children.

Q. You can ask any employee where they are? A. Sometimes you get an answer and sometimes you don't. Some of them are foreigners.

Q. And it may become necessary to have someone who understood a foreign language with you? A. I do—I take an interpreter very often.

Q. You, of course, could just as well get this information about the number of people in the factory afterwards as you could in the beginning. You see what we are trying to point out, Mr. Harmon, is that these conditions which exist in factories are not discovered because the inspectors inform somebody in authority that they are there, and the persons in authority know what you are looking for. Now, take the question of filth, you discover that in many cases, haven't you? A. Why, yes.

Q. And it looks, when you discover it in factories, to be pretty permanent? A. Well, as a rule.

Q. And you order that it be cleaned? A. Yes.

Q. And whether they comply with your order you generally don't know, do you? A. Well, that depends on where I am, and what the conditions are. Sometimes I stayed there until they complied with that—right there.

Q. And then they may go right back into the same condition? A. I think they do, in a shop of that kind.

Q. Well, what do you suggest can be done there? A. Why, my experience is that when that man has been made an example of, that he doesn't require so much attention afterwards.

Q. That is the only thing you have to suggest? A. I am talking about a man keeping his shop clean.

Q. Well, now, go back to this particular Triangle Waist Company loft. Did you discover any violations of the law when you were there at all? A. Yes, sir, I did.

Q. What did you discover? A. Well, the shafting under the machine tables was not guarded; that is, a portion of it was not guarded, and part of it was. They had no dressing rooms for the girls, that is, that complied with the law, and the lights in the halls were inadequate.

Q. That is, the lights in the hall which went downstairs? A. Yes, the hall should be kept lighted.

Q. Did you find the doors leading to the stairs opening inward? A. They all opened in, every one of them.

Q. Did you report that to the Department? A. I did.

Q. Did you order it remedied? A. I did not. In my judgment it wasn't practicable to open out into the hall because the halls were too narrow, and I so reported.

Q. Did you order sliding doors put in? A. I did not.

Q. Did you order a vestibule door put in? A. I did not.

Q. Do you realize that if those doors had not opened inward there might not have been such a loss of life? A. Well, the idea of sliding doors is new since. Yes, I realize that. I know that. I knew that before. The doors should swing out.

Q. How wide were the spaces between the wall and the end of each row of machines where the employees had to walk in order to get to the doors or fire-escapes? A. Well, you are asking me questions that it is hard for me to answer. The only thing that I can rely on is the record I have in my book, and my book makes no record of anything of that kind at all.

Q. Didn't you bring your report here with you? A. Yes, I have it.

Q. Well, look at it. A. That does not show what you are asking; it doesn't show the space between the end of the tables and the wall.

Q. The space there ought to be wide enough for the employees to pass through easily in case of fire or in ordinary cases of panic? A. Yes.

Q. Isn't it a fact that the space was only eighteen inches?
A. Between the end of the table and the wall?

Q. Between the end of the table and the wall. A. Well, between the end of the table and the wall on the Washington Place side that may be possible.

Q. Well, that is where they have to go, these employees had to go? A. I beg your pardon. They had to go the other way to get out, they had to pass between the tables. At the end of the table on the north side of the building, what is known as the north side of the building, there was ample room there, there was no aisle there, and they used the Greene Street stairway, they didn't use the Washington Place stairway.

Q. Couldn't they use the Washington Place stairway in case of fire? A. Yes.

Q. Wasn't it your duty to see that there was adequate space for the employees to reach either staircase, whether Washington or Greene Street in case of fire or other hazardous cause? A. Well, yes, it is my duty, yes.

Q. Well, then, didn't you find that the space leading to the Washington Place stairs between the end of the tables and machines and the wall was only eighteen inches, and that that was inadequate? A. I did not measure the space, but I think that that is about right.

Q. And that was an inadequate space? A. Well, that depends altogether on conditions. That is an adequate space for people not in a hurry.

Q. Well, when there is a fire, people are in a hurry and your duty was to examine this space to find out whether the people could get out in a hurry? A. I know, but there were other ways besides that aisle, that 18-inch aisle.

Q. I know, but doesn't the law require you to find that every way out is a proper way? A. If you can show me that in the law, I would be glad to see it.

Q. Doesn't the law require you to inspect and find out that proper space is given to every egress in case of fire, and that the ways are not blocked or impeded? A. It doesn't say egress, it says exits. As I understand the meaning of the word "exit," it is a window or door which leads to the fire-escape.

Q. Then you don't agree with me. Let me understand now if I am right — that it makes no difference, according to your contention, whether the way to the stairs is blocked or not. You have nothing to do with it? A. Oh, yes. Now, you are not getting that fairly.

Q. I don't want to be unfair to you. A. The way to the stairs is not to be blocked, and I wouldn't allow it to be blocked.

Q. Well, have you any authority there? A. If I could stop it I would not allow it to be blocked. It is quite a question in my mind how far my authority goes there.

Q. Have you ever asked for instructions from your Department upon it? A. Well, the matter has been talked over. It is one of the things where you are supposed — it is a case where you are supposed to use your good judgment.

Q. Now, if the aisles to the stairs were blocked absolutely — A. I would order them cleared out.

Q. And if they were blocked partially, so as to make them inadequate for a number of people in a hurry, wasn't that your duty to report it? A. I did report it.

Q. Didn't you report that there were only eighteen inches space? A. I did not.

Q. How many people were employed in the Triangle Waist Factory? A. About 400 men and women — 150 men and 250 women.

Q. Understand, I don't want to be in the least unfair to you. I wouldn't for anything. Now, what else did you discover? You started to tell me some violations of the law you discovered there when you examined it. What else did you discover? Was there any dirt on the floor? A. No dirt, except the natural refuse from the work that they were doing.

Q. Was there any more than would be there from one day's work? A. That is all.

Q. Were the employees smoking? A. Well, I saw stains on the table where cigarettes had laid.

Q. The marks of the cigarette? A. In that particular case I saw nobody smoking there. I have reported that to the employers time and again, of seeing men smoking in shops, because I know it is a mighty dangerous habit.

Q. Was there anything else that you discovered? A. Only the things that I told you, the dressing room, the shafting unguarded under the tables, and the lights in the hall.

Q. When did you make your next inspection? A. I haven't been there since.

Q. Did you notice whether these doors that opened inward had locks on them and keys in the locks? A. The Washington side did. I don't know whether the Greene Street side did or not. The employees used that side, you know; they used it going up and downstairs.

Q. It was open all the time? A. They were going back and forward all the time, going downstairs.

Q. Was the door which led to the elevator also open? A. Yes, and the elevators were on the Greene Street side, three elevators on the Greene Street side and two elevators on the Washington Place side.

Q. Now, where the doors were not swinging open — the door which opened inward — did you notice whether or not the man who took you through turned the key and opened the door that way? A. They didn't unlock the door at all. A girl took me through, a young lady out of the office. They were very busy and sent the telephone girl with me.

Q. Well, didn't you go back in this case to see whether or not the violations which you found were complied with? A. I did not. They were turned over to another deputy.

Mr. ELKUS: That is all. Any questions from the Commissioners?

The CHAIRMAN: No.

JOSEPH JOHNSON, called as a witness, and being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Commissioner, you are Commissioner of the Fire Department and have been such since when? A. June 1st, 1911.

Q. Your Chief of the Fire Department testified here this morning that the firemen under his control had made inspections, under your orders, of factory buildings in New York City, and found some two thousand violations of different laws and provisions of law, and that they had been reported to various Departments by you or your order. Have you received any notice from any department that any of those violations have been remedied?

A. Well, they would be reported in the routine way. I cannot answer the question definitely. I believe all of those violations have not gone out yet.

Q. Well, the Chief said that as to those which had gone out he had not heard anything about them, and he would have known?

A. He would have gotten it ultimately; because the Bureau of Violations and Auxiliary Appliances is under his official charge.

Q. What personal investigation have you had made or made yourself with reference to safety in case of fire in factory buildings or prevention of fire in factory buildings? A. Well, I have been very much interested in the whole subject of fire prevention. When I came into office I found two or three measures pending at Albany on the subject, one of which was the Hoey bill, and thinking at that time that the Charter might pass, I was very anxious to see that whatever was necessary for the proper administration of the Bureau of Fire Prevention in the Fire Department was in the Charter. So we tried as well as we could, after conferences with everybody concerned — Mr. Hoey and Mr. Foley and Senator Cullen, Mr. Herrick, and the Merchants' Association and so forth — to see that the Hoey bill was as much a duplicate of what is going into the Charter as possible. The situation now is this, the Hoey bill was passed pending the discussion on the Charter, and it is the only thing that is now alive. The Mayor has signed it, and it is before the Governor for signature. It differs slightly from the Charter because the Charter provisions were an improvement on it — much simpler and clearer.

I was before the Budget Committee of the Board of Estimate the other day with a request for \$747,000 for about four hundred and fifty employees of the Bureau of Fire Prevention which would establish a grant to the Fire Department about equal to

the present Tenement House Department. I made this statement before Comptroller Prendergast and Mr. Mitchel, Mr. MoAneny being absent. I said, I thought ironically, that I understood that the Charter was dead, and the Comptroller very gleefully said that my understanding was quite clear. Among the things that died in the Charter, over whose obsequies they seemed to be so happy, is an almost perfect, as far as I can see under present conditions, fire prevention bill. The gentleman I never met before — I took him for the Commissioner of Labor — that has just testified —

Q. Yes, Mr. Williams. A. Has spoken to you on the subject of matches.

Of course, matches seem a small and inconsiderable element in the affairs of our lives. As a matter of fact, I think our statistics show that 2,000 fires a year are caused by the careless throwing away of matches in New York City; probably a thousand more by the careless throwing away of cigars and cigarettes.

Now, when we send our children to school, they learn not to spit on the floor, they learn not to go there with sore eyes, to avoid contagion; they are vaccinated; but we haven't sought to establish any sort of new mental attitude on the subject of fires. Children, you know, still regard fire as a plaything.

The New York Fire Department, I think, is a most excellent extinguishing force, but this new subject has never been in any manner emphasized in the proper way, and I believe almost astonishing results can be brought about by a real thorough-going, scientific Bureau of Fire Prevention.

I laid this plan before these gentlemen of the Board of Estimate. If the Committee has time, I will briefly outline what the proposition was.

Mr. ELKUS: I will be very glad to have you do it.

The WITNESS: I don't think the work ought to be undertaken except that a proper foundation is laid. They expect me to attempt it with eight people.

If I had the power, I should feel inclined to refuse to accept any such responsibility, and to let our friends say that we have in the Fire Department a Bureau of Fire Prevention.

Q. What is the plan, Commissioner? A. There should be a fire survey of New York City, such as the experts in the insurance business get up for their purposes. There should be in the Fire Department —

Q. Won't they let you have theirs? A. Well,— the Board of Fire Underwriters has a very elaborate fire survey of every building in the city. They are, to a certain point, natural allies of the Fire Department, but they might some day come in for criticism themselves, and it might not be desired to take their data or to depend upon it.

Q. Well, could you not take their data and have it verified at very much less expense than starting a new fire survey from the beginning yourselves? A. No, sir. I think the Fire Department should originate, and obtain and keep its own data on the subject. What I mean is this. I am very desirous that the Underwriters should regard the Fire Department as being administered in a capable way, but, at the same time, are they as careful as they should be in insuring people in New York City? I don't say that all companies are not perfectly careful; I merely suggest to the Committee that possibly the time will come some day when you can't get insurance just by calling up your broker over the phone, and that somebody will come and see how much you have insured there before they issue a policy.

Q. You believe, then, that the question of the amount of insurance ought to be brought home to the insurance companies very vigorously? A. Yes; and I should desire an inspector of the Bureau of Fire Prevention, in making an inspection of an apartment or a dwelling, to ask the landlord or landlady or the dweller therein, as to whether she is insured and for how much, and to get her to show the inspector where it is. Frequently, if you went about now, you couldn't find it. Incendiarism in New York is on a much larger scale than the public imagines; and I don't know just what share of responsibility the method of insuring has. I certainly think it is worthy of investigation.

Now, if you have a plan or map of every building in New York City from the fire standpoint as your plan and as your starting point, and you follow that up by a real serious inspection of all matters pertaining to the hazard to

life and property, in my opinion, the number of fires in New York will begin to go right down, without regard to the growth of the city. I believe that there is a big field there. For instance, I was enabled to add a few men to the Bureau of Fire Marshals and perhaps had to inject a little enthusiasm into them. Chief Kenlon went out and made these inspections, and put on these violations. I don't know whether it is attributable to these acts or not, but it is a fact that within the last two or three months there have been fewer fires in New York City than in the same months last year, and that very rarely happens, because you naturally expect an increase.

Q. May I interrupt you a moment? On this question of matches, would you be in favor of prohibiting the use of matches or the carrying of matches by employees in factories? A. I certainly would be in favor of people not smoking in factories during working hours on the premises, or carrying matches during that time. I don't know whether the American workingman will stand for a search for matches or not.

Q. I don't know whether you were here. I asked Commissioner Williams that question? A. I was here.

Q. And he was very emphatic that it ought not to be allowed and I told him that I had been told by the head of one of the large department stores that it prohibited the carrying of matches, with great success. A. What occurred to me—I didn't know whether they were searching all the time for matches or not in the department stores.

Q. Well, I understand that they only had to search once in a while, and when they did find them, after notice, they were summarily dismissed. A. Well, I would much rather obey a general law than to be searched for matches, if I were working in a store.

We are going to the Governor Monday to ask him to sign the Hoey bill.

Q. You favor the Hoey bill? A. Yes. It has some imperfections in it that Mr. Hoey prevented in the Charter, but not vitally serious at all.

Q. That bill creates a Bureau of Prevention? A. Yes, but it does not create a Bureau of eight persons.

Q. Are you in favor of the procedure outlined in the Hoey-Sullivan bill? A. Why, if the Fire Commission is given the power of vacation.

Q. Well, I am referring now to the construction by the city of work ordered to be done where the owner fails to do it? A. No, sir, I don't think that is a very good idea.

Q. Well, that is in the bill, you know? A. There is a mistaken assumption in the start of that whole business, that the relations between the Building Bureau and the Fire Department would be changed by any bill seeking to give the Fire Commissioner authority to correct these evils. As long as you have got a Building Bureau it must operate in its own field, namely, in construction matters; and even if I had the power of telling a man who, I thought, had in his place an extraordinary hazard, to get out pending structural alterations, those plans would be O. K.'d by the Building Bureau before they got back to me just the same. They must and they should be, and the Fire Department does not want to add any Building Bureau to itself.

Q. Wouldn't the effect of the Hoey-Sullivan bill be practically to compel that builder to submit his plans both to the Building Department and to the Fire Department for approval? A. Well, I think that should be done. It is practically done now. Those plans, as they pertain to the Fire Department's jurisdiction are passed upon by the Fire Department.

Q. You only pass upon the efficiency of fire-escapes, don't you? Don't let me interrupt you; go right ahead. A. Why, I don't know whether I can follow you consecutively or not. But in reference to fire prevention in general, of course, the loft and factory aspect of it is only one phase of the work, so far as the Fire Department is concerned. We have all of the buildings in New York to look out after. For instance, in the matter of rubbish in cellars, from which so many of our fires take place. That is a preventable situation. Our Italian friends very frequently go out and get kindling wood and bring it back and put it in the cellar and go down at night, with a lighted candle and matches, and they throw the match away and perhaps by the time they get upstairs the house is on fire.

Q. How large a percentage of fires is caused by preventable neglect? A. Well, I would not like to undertake to go on record

on that; because I haven't enough accurate information to say, but I would not be at all surprised to see, under proper administration of the Bureau of Fire Prevention the alarms sounded in New York go down ten or fifteen per cent after the first year of the complete organization of it. I would hope to accomplish it.

Of course, the superior equipment which we hope to get into the Fire Department are means of fire prevention. Horses, in certain outlying districts, can't get to a building now before it is burned up, and we have fast running combination chemical hose wagons in Staten Island, parts of Brooklyn and Queens, which can put out these curtain fires, and all these incipient match fires, that get completely away now. If you start to run a horse four or five miles, he goes twelve or fifteen miles an hour the first few minutes, and by the time he gets to the fire he wants to walk, you know, pulling those heavy pieces of apparatus. In other words, it is the desire of the present administration of the Fire Department to modernize it in every way—even to the extent, as I say, of trying to establish a different mental attitude on the part of housewives and people in general on the subject of fires.

Q. What do you suggest with reference to the use of the sprinkler system? A. As you know, the courts have sustained the Fire Department in the installation of sprinkler systems. I am informed by Chief Kenlon that it is one of the very best aids to the Fire Department. A proper sprinkler system automatically turns in the alarm while it is sprinkling the fire, and it is really telling the firemen that they are holding the fire until the firemen get there, and I don't suppose—I don't think there is any difference of opinion on the subject of sprinklers now.

Q. Have you investigated at all, Commissioner, to find out whether or not there is a trust in sprinkler systems? A. I don't know of anything—any trust in the sprinkler systems.

Q. It has been stated that there is some understanding or agreement between the sprinkler concerns, fostered by the Insurance Companies, which limits the business to three or four combinations practically? A. I don't know anything about that.

Q. And that there is some kind of a price arrangement? A. I should doubt it. There is a great deal of effort by the most artful means to get information out of the Fire Department in

advance as to where sprinklers are going to be placed. I simply regard that as business zeal, and I simply try to get my men up there to keep the Departmental work a secret, and not to divulge information except to the owner.

Q. Under what circumstances, in what cases does your Department order a sprinkler system put in? A. Well, the Department does not enter into any wholesale crusade. If we find a place manufacturing fire extinguishers we would not put in sprinklers, and if we found a man manufacturing brooms, we would. You have got to be, you know, guided by a degree of common sense on those matters. If you do find a hazard you consider putting them in, and if you don't, you don't order them in. It is really a discretionary power with the Fire Commissioner.

Q. You referred to the subject of educating the children? A. As I say, in the public schools the children are educated as to cleanliness.

Q. Would you be in favor of educating children in the use of matches and things of that sort, instructing them how matches are to be used with care, so that they may take the information home to their parents? A. As a part of the propaganda, I should think it would be a very excellent thing to do. You go on the streets now, and you see children burning cans—having cans with hot coals of fire

The CHAIRMAN: There was one question I wanted to ask Chief Kenlon this morning, and that is this: what degree of heat is required to start the automatic sprinkler?

The WITNESS: I should think all the way from 160 up to 200 degrees.

Mr. ELKUS: 150 degrees, I think it begins.

The WITNESS: Sir?

Mr. ELKUS: 150 degrees.

The WITNESS: Yes.

The CHAIRMAN: That suggests to me the question of what is going to happen to the people in there while they are waiting for that temperature to go up high enough to start these sprinklers.

The WITNESS: Any hot room in a Turkish bath goes up that high.

The CHAIRMAN: The highest, I think, is 130 degrees.

The WITNESS: Well, I think they go up higher than that in these hot rooms; I noticed one not long ago that was up around 150. Of course, you cannot stand 150 long, but you can stand it long enough to get out.

Q. Would not it be advisable, Commissioner, besides having the sprinkler system that you have some kind of an auxiliary fire alarm to notify everyone in the building that there was a fire?

A. Why in most places, I think they have them, presumably by the orders of the Fire Department.

Q. In any event you believe they ought to have them? A. Yes, sir. What we object to sometimes is the connecting up of every room — of all floor space, in a hotel or theatre building — we object to the connecting up of these with the fire alarm.

Q. Well, that is discretionary with the Department to require these fire alarms? A. Yes, sir; for instance, there might be a school in which there were only fifty boys and girls, where they could get out in half a minute.

Q. Your discretionary orders with reference to fire alarms does not apply to manufactory establishments? A. I am not sure as to the law on that at this moment; but my understanding is that I have a general discretionary power.

Mr. ELKUS: I think you have as to hotels, theatres and other public buildings.

Commissioner SMITH: Coming back to the question of fire safety, are not the Underwriters' Rules more with the idea of the

prevention of loss to a building than it is to the prevention of loss by life?

The WITNESS: Yes.

Commissioner SMITH: As for instance in the Asch fire. It was estimated that in that building the loss which the building itself suffered was small as compared with the terrible loss of life?

The WITNESS: That is true; yes, sir.

Commissioner PHILLIPS: You spoke about a man's taking out fire insurance; what would be your opinion of a law that would forbid a man recovering more than 75 per cent of the loss, where the fire started in his premises, so that he could not entirely protect himself against any carelessness?

The WITNESS: I should say that anything which would minimize incendiarism would help the general situation.

Commissioner PHILLIPS: And make him suffer a little of the loss himself, so as to be careful.

The WITNESS: We know of so many places where a man was at his table making up his inventory early in the morning after his fire, and the insurance policy was on the place. He will show you a wardrobe containing \$500 worth of dresses in there and the dresses or clothes really were not worth over \$15.

The CHAIRMAN: In order to get this into the record, in view of the attitude of the Budget Committee towards your request for the men to man the Bureau of the Fire Prevention, in view of their giving you only eight men, I think you would strongly favor that we put a mandatory provision into any law coming from this Committee as to the number of employees, would you not? I ask that question, because it is always raised against us.

The WITNESS: If you pass a bill pertaining to this matter, and don't make it mandatory, you are not likely to do anything with

it, because I regret to say that a difference exists in the Board of Estimate affecting this very important matter.

Q. You don't mean to say that they would interfere with anything leading to the protection and safety of life. A. It is quite strange that they have—that they have taken that particular color on this subject. I don't want to say anything that will put the Fire Department in bad with the Comptroller's office, because I have been there myself; I do not want to say that they refused my request discourteously, but their courtesy did not give me a Bureau of Fire Prevention.

Q. You mean to say that you were turned down absolutely?

A. Yes, sir.

Q. That is to say, you were "slammed" ? A. Nevertheless I did not get it.

The CHAIRMAN: For the purpose of the record, again, how much of a force in your estimation do you think you should have for a Bureau of Fire Prevention?

The WITNESS: Why, the theory I went on—I think it is fairly correct—I looked upon that work as more kindred to the Tenement House Department than any other. I think a Bureau of about the same size should be established for them; I think between, oh, 450 men or a fraction. I think they have a payroll of upwards of \$800,000, and we would have a larger number of buildings than the Tenement House Department does—we have to inspect a larger number of buildings than they do, and just as thoroughly. There is just as wide a field, and just as much benefit to the people at large to be derived by our inspection as by the Tenement House Department. As a matter of fact, we should know something in this Bureau about every building in New York.

Q. Commissioner, would not you be in favor, then, of a Central Bureau of Inspection created by the state, with a branch, and a number of competent deputies in cities, particularly one in this city; that is to say, the inspector to ascertain facts which all the Departments would require under proper supervision, and submit these facts to the Department, which Department would decide whether they were violations of the law, or violations of

regulations. This would do away with this duplication of inspections which are being made by every Department to-day, and would also put the responsibility where it belonged, on certain Departments instead of a distributed force receiving these reports, and the different Departments shifting the responsibility as to who is to blame for the violation of the law, where a catastrophe as the result of any violation had occurred? A. What sort of data do you require?

Q. Every kind. A. On what subject?

Q. Anything required by the Departments of the city — whether Health, Sanitary, Fire or what. When your men go over from the Fire Department they, and a number of other employees — are there to make inspections, and there is a duplication of work which takes time — takes the time of not only the inspectors, but takes the time of others to report it. Then each Department would want some specific information for itself. It has been demonstrated that for private inspections — like the Joint Board of Sanitary Control, that their inspectors could get their information as to bad sanitation or bad construction of buildings. What I want to ask is, if in your opinion such a Bureau could be adopted — not only for the state alone, but for the City of New York itself? A. Well, I am a great believer in specializing. In my opinion, it would be better to leave to the Fire Department of New York the things for which it is responsible.

Q. The Fire Department would be responsible for the enforcement of these violations of law, or for the conditions reported to them. A. You would have the same shifting of responsibility.

Q. No, because their reports would be in writing. They would have to report all the facts, and when action was taken on the facts, it would be up to the various Departments? A. I never like to see the state get into what belongs to the city.

Q. Well, that is a question of home rule. Outside of that, I don't say that it has to be instituted by the state — whether instituted by the state or city, have the officials, if you please, in the cities appointed by the Mayors. A. Why, the Fire Commissioner's power now with respect to these conditions is almost a joke.

Q. I appreciate that. A. We should be permitted more leeway — given more power. For instance, there is a theatre uptown upon which they put a violation every night.

Q. And the theatre goes right on? A. And the theatre goes right on. Even with the matter of standees — we are handling that now; we have compelled them to pay \$50 over and over again, but they would not hesitate an instant if they thought they could get more than fifty standees every night. The Commissioner has not the power to enforce the regulations.

The CHAIRMAN: The fact is that the same power ought to be given to the Fire Commissioner that the Health Department has to vacate the premises.

The WITNESS: He should be given this privilege. If you go into a man's place, and his stairway is inadequate, or the door is not properly constructed, and he allows smoking in conjunction with the manufacture of flimsy material, pending a justification of it in the courts by regular legal process the Commissioner should have this power to vacate. Now, of the dangers with fire, we find that a lot lies in the stairways of the balconies that go down outside; I don't think there should be any; that is up to the Bureau of Buildings.

Q. Commissioner, Chief Kenlon said there were, I think, several hundred places in New York of which he had the numbers where the conditions were such as to be similar to those in the building where the catastrophe of the Asch fire occurred; do you feel justified in giving to the public the location of these buildings? A. Why, if you want to cause a riot among the people who have violations against them — I don't think it would be fair to them.

Q. You think it would be better to not make that public?

A. I would willingly give the information to the Commissioners privately.

Q. We would like to make it a part of our report, when it is submitted. A. Have you a copy of your report on the fire at the Asch Building? We would like to have it. A. I have the original papers and description and reports gotten up by Chief Croker and Fire Marshal Beers, but they are originals.

Q. If you will leave them with me,—leave the papers with me, I will promise to give them back.

The CHAIRMAN: One more question, Commissioner. Will there be any way for the state to tax insurance companies for some part of the cost of maintaining this Bureau of Fire Prevention?

The WITNESS: They could.

Mr. ELKUS: Yes, of course they could. It would be perfectly proper to add something to the license fee for the insurance companies, some of which fee could be paid to the City of New York and to the other cities maintaining a Bureau of Fire Prevention. It would be legitimate, because it would be saving money for them; isn't that so?

The WITNESS: Well, of course a fire insurance man wants a certain hazard; if the hazard is reduced, he don't want the Fire Department to be absolute proof, of course.

Mr. ELKUS: That is all, Mr. Commissioner. I thank you very much. I find that we have so many more witnesses and the testimony being so much more than I expected, I will ask you to hold a session to-morrow morning, Mr. Chairman, of two hours, commencing at 10 o'clock; and I ask that you direct all the witnesses to appear.

The CHAIRMAN: To-morrow morning, at 10 o'clock; all witnesses will please appear.

Adjourned to October 14, 1911, at 10 A. M.

NEW YORK, *October 14th*, 1911.

WILLIAM E. TIBBS, called as a witness, being duly sworn,
testified as follows:

By Mr. ELKUS:

Q. What is your name in full? A. William E. Tibbs.

Q. Where do you reside? A. My residence you mean?

Q. Yes. A. Newburgh.

Q. You reside there all the time? A. Well, my home is there, but I work mostly in New York, not all the while.

Q. You are a deputy inspector of the Labor Department of the State of New York? A. Yes.

Q. Are you assigned in New York city? A. Most of the time; yes, sir.

Q. How long have you been assigned here? A. Well, I have been in the Department on and off for fifteen years; I probably spend nine months of the year down here alone.

Q. Where do you spend the rest of the time? A. I am up either in Orange or Rockland Counties.

Q. Inspecting factories there? A. Yes, sir.

Q. Are you assigned to any particular district in New York city? A. No, I get an assignment and finish that up and go to another one.

Q. How long does it take you to cover one assignment? A. I could not answer that question; it doesn't run alike.

Q. How many blocks are in your assignment usually? A. As high as fifty.

Q. Fifty blocks? A. I have had as low as only four or five.

Q. Do you ever inspect the same block twice? A. I have done so; yes, sir.

Q. That is a rare thing? A. Well, it is uncommon, you might say.

Q. Now, at the present time what district are you assigned to in New York city? A. At the present time I am doing what they call a kind of special work; I am all over.

Q. What do you mean by all over? A. Wherever they send me to.

Q. You mean you may be assigned to particular buildings?
A. They give me a list of the property and some certain thing to look up.

Q. Were you in that way assigned to examine this property on Mangin Street? A. Yes, sir.

Q. By special list? A. I went there on a complaint; an anonymous complaint.

Q. Have you got the complaint with you? A. No, but I can give you the wording of it.

Q. What is it? A. Well, there was no lights in the hallway.

Q. When was it you went there? A. On the 3rd of October.

Q. Who sent you there? A. They had a special officer in New York city, of factory inspection.

Q. What did he say to you? A. He gave me this notice and told me to go down and see what the conditions were in this building as to the lights.

Q. Did you go there? A. Yes, sir.

Q. What did you do? You went to all the floors, and stopped at all the floors and elevators? A. I got the superintendent of the building, and we went through all floors, that is we went to the stairways.

Q. You went there to see if there were lights in the halls?
A. Yes, sir.

Q. Now, the man who had charge of that and who would be responsible for the care of the lights was the superintendent?
A. He was the man I saw.

Q. And you went there to find out whether there were lights or not. A. Yes, sir.

Q. And the first man you could see was the man whose fault it would be if there were not lights? A. Not necessarily.

Q. You just said it was. A. The fixtures were not there; they claimed they were broken.

Q. He represents the owner of the building? A. Yes, sir.

Q. There were no fixtures there? A. There were no fixtures there on some floors.

Q. How old was that building? A. How old a building?

Q. Yes. A. Comparatively new building, modern building.

Q. Three or four years old? A. Probably.

Q. They had no lights on certain floors? A. Yes, they were there; you could see where the fixtures were. They had been broken off.

Q. Electric lights? A. Electric light and some gas.

Q. Broken off? A. Yes, three floors.

Q. What else did you visit on these floors? A. I made an inspection of Shapiro's candy concern.

Q. What did you do, ask for him? A. No. I just walked in and looked around, and made an inspection and then I went out.

Q. How long were you there? A. Probably half an hour.

Q. Walked along the partitions and behind all the boards and everything? A. Yes, sir; in Shapiro's.

Q. In Shapiro's? A. The only place I went to in the building.

Q. That is the only one? A. That is the only one.

Q. Was there any complaint on Shapiro? A. No.

Q. Why did you select him? A. On account of making an inspection to get orders, if any were needed, and also he being on the top floor.

Q. Was there any complaint on that place? A. No, sir; I went there voluntarily.

Q. Why should you select that one place? A. I had been given an order to light all the hallways and stairways there. I went on the seventh floor and Shapiro was on the eighth floor, and I went in his place in obedience to that.

Q. That is as I understand you, you went into this building on the top floor, and because Shapiro was on the top floor you went into his place? A. Yes.

Q. That was the only reason? A. That was the only reason.

Q. And you are sure you went in and found him on the top floor? A. I am certain of it; yes, sir.

Q. You are certain of it? A. Yes, sir.

Q. Isn't it a fact that the hair place was on the seventh floor and Shapiro on the fifth? A. No, sir; it is not.

Q. You are sure it was the top floor? A. You mean the eighth floor? The top floor of the building? He occupied one-half a loft.

Q. Now, Mr. Tibbs, you went in there; did you see a fire?
A. Yes, sir.

Q. Was the place dirty? A. Yes, sir; when I say dirty, I do not mean filthy. It was dirty incidental to the manner of work carried on there.

Q. You mean you walked around and your feet slipped in the candy or jelly on the floor? A. My feet stuck, not slipped.

Q. And the girls were all dirty, their clothes were dirty? A. Untidy.

Q. All full of the stuff? A. Yes.

Q. And you saw that the girls were dipping into the jelly candies and chocolate? A. Yes, they would dip their hands in the chocolate.

Q. And there was a fire there? A. Yes, sir.

Q. Did you make any orders or make any reports about those conditions? A. Yes, sir.

Q. What did you do? A. I put in an order to clean the flooring, also to clean the toilets and also to light the halls and stairways.

Q. How long ago? A. That was the 3rd of October.

Q. So the conditions there were such that you made an order requiring them to clean the toilets, clean the floors, to clean the whole place and to clean the hallways? A. No, not clean the hallways, the halls were in very good shape.

Q. To clean the floors, clean up everything? A. Yes, sir.

Q. You made a report of the exact conditions which you found? You would give them the order to-day — A. (Interrupting) That went to Albany.

Q. You then went back to your office and made out a blank? A. We have a form, you know.

Q. A form. And that you sent to Albany? A. Yes, sir.

Q. And that is how you go about it? A. And that is how you go about it.

Q. Did you ever go back to find out whether they cleaned it? A. No, sir.

Q. Then there is no manner when you find conditions such as you have described, there is no way in which you can compel enforcement? A. I do not know now how to avoid it.

Q. Is that your testimony? A. Yes, sir.

Q. You did not go back there? A. No, we give an order and we cannot get any help.

Q. Not where you find those conditions? A. No, sir.

Q. Don't you take any interest in that matter? A. Yes, sir.

Q. Why didn't you order any one — Shapiro, if I understand you — to close up his place? A. I have not got power to do so, I am only the deputy.

Q. You mean to say you cannot tell a man like this, "Mr. Shapiro, your place is filthy, your establishment is vile, why don't you clean it up?" A. That would not be final. I did tell him to do it; I certainly did. While I waited he cleaned the closets; he cleaned them while I was there, cleaned them right away.

Q. He did do that? A. Yes, while I was there. He claimed that he had been cleaning them once a week, and I said, "You ought to clean them every day."

Q. You did tell him — A. (Interrupting) He said once a week, and I said every day.

Q. Well, do you think if you had power to order a building to close up it would be better? A. I surely do.

Q. Then your duty ceases when you order them to clean up? A. I can order them, but there is no authority, there is no official —

Q. You are an official of the Department, are you not? A. The deputies do that; they do all the ordering in a loft place.

Q. How long does it take before your report goes to Albany, and the order gets back? A. That is something I cannot tell you. Mr. Counsel. When it leaves my hands, that is as far as I go.

Q. Is there any system by which the order is followed up to see that it is obeyed? A. Yes, sir.

Q. What is the system? A. What they call compliance sheets.

Q. Do you know whether there was a compliance sheet here? A. I do not; it may have been referred to somebody else.

Q. You consider that this candy factory was unsanitary, unventilated, or an unhealthy place for these girls to work in? A. I would not call it unsanitary.

Q. Well, it was filthy? A. No, I did not say filthy, I said dirty, not filthy; it was dirty incidental to the work carried on.

Q. But the toilets were not dirty from work? A. The toilets were filthy; I am speaking of the factory proper.

Q. Which made it unhealthy. The dirt was there the whole week where this candy was made, and the girls were breathing the dust? A. Yes.

Q. But this candy was manufactured for the purpose of being sold to children? A. Yes.

Q. You knew that? A. Yes.

Mr. ELKUS: I think that is all.

By Commissioner DREIER:

Q. Would it be better if the man that gives the order should see that it was complied with? A. On a compliance?

Q. On a compliance, to see whether it is carried out? What is your opinion on that? A. In some instances, probably. It was the rule one time for them to see about compliances, but now they have made changes, and the last couple of months, we used probably twelve or fourteen inspectors to look after the compliances.

Q. Wouldn't it be a better thing if the inspector who made the inspection and sent the order also saw that it was complied with? A. I think it would be a good idea.

By Mr. ELKUS:

Q. Mr. Tibbs, how long have you been an inspector? A. Fifteen years last June.

Q. And what was your previous business? A. I worked — different things I worked at?

Q. Yes. A. I worked in Sweet-Orr & Company, manufacturers of clothing.

Q. In Newburgh? A. Yes, sir.

Q. What kind of business were you in? A. Manufacturing clothing, presser.

Q. What did you do there? A. I was a presser there.

Q. That is your previous qualification? A. Yes, sir.

Q. And that was your only qualification for this position? A. No; I previously worked in the rubber business, in the horn business.

Q. In the rubber business in Newburgh? A. No, in Wappingers Falls, and in Akron, Ohio.

Q. Had you ever been trained to examine into factory conditions or fire conditions? A. Training?

Q. Yes. A. You mean special training?

Q. Yes. A. No.

Q. How did you get your appointment as an inspector? A. Through civil service.

Q. You passed a civil service examination? A. Yes, sir.

Q. You then were recommended by somebody? A. I do not know, I do not know anything about that; I was third on the list and one man was appointed ahead of me, and I got the next appointment.

Q. Now, did you go through any of the other factories in this building? A. No, I did not.

Q. This is an eight-story building and there are factories or other floors? A. I did not go through the other floors.

Q. Why didn't you go through all the floors? A. I just went in and I went up to this place in Mangin Street to make such an inspection, and I commenced, as I say, on the top floor to get an order for lighting all the way through.

Q. So you did not have any concern with the rest of the building? A. No, not that time.

Q. Who was the regular inspector on that particular section at that time? A. I think Mr. Barschell, I am not sure; I think he made the last inspection.

Q. Mr. Barschell, is he here? A. Right in the rear.

CHARLES T. GRAHAM-ROGERS, called as a witness, being duly sworn, testified as follows:

Examined By Mr. ELKUS:

Q. Doctor Rogers, you are a physician by profession? A. I am.

Q. You are connected with the Labor Department of the State? A. I am.

Q. In what capacity? A. Medical inspector of factories.

Q. Just tell us briefly what your duties are in the Department. A. Under the direction of the Commissioner, I undertake

investigations into various industries to ascertain if there are any methods or processes which may be dangerous to the health of the operators, and to investigate those dangerous processes, and report back to the Commissioner with such recommendations as may tend toward bettering the conditions, and make the industry so it will be safe for the workers to be employed in it.

Q. Do I understand you that you limit your services to investigating manufactories where the kind and nature of the business are dangerous to life and health? A. No.

Q. How do you determine your business or what manufacturing establishments you will examine? A. There are several things I do besides that; I visit various factories and through that means get at such inspections, and I make investigations upon complaint made to the Commissioner regarding sanitary matters or dangerous conditions in factories. He refers the matter to me, and then I make an investigation, and investigate conditions, that is questions relating to sanitary conditions.

Q. How do these matters come to you? A. Referred to me by the Commissioner.

Q. How does he get them? A. Sometimes there are complaints, and sometimes there are questions which are referred to me from other Bureaus.

Q. Now, what do you do, examine the factory yourself personally? A. I personally visit the factory and make a thorough investigation of the factory, that is the same inspection as the Deputy Factory Inspector would make; besides that I question the workers, and if possible, try and get the workers to take physical examinations, and I make an analysis of the atmospheric condition and dust, and if possible make an analysis of such ingredients as may be used in the process.

Q. Are you the only medical inspector in the Department? A. Yes.

Q. How long have you been such Medical Inspector? A. Since November, 1910.

Q. Now, have you examined several particular industries? A. Yes, I have.

Q. Will you name them? A. I have taken up dangerous industries of the state, such as the pottery industry, the calico print

industry in the state, and I have made some investigations into the human hair goods industry and the felt hat industry. Those are complete investigations.

Q. You did that on your own initiative? A. Under the direction of the Commissioner. I would tell him that I was going to take up a certain industry.

Q. You mentioned, I think, the human hair industry? A. I have been going into that, yes.

Q. Now, when you examined any one of these that you have mentioned, you go to one or more of the factories, and find out, do you, what can be done to alleviate conditions which cause danger? A. Yes.

Q. Now, suppose you take up any one or more of these industries, tell the Commission the condition which you found upon your examination and what was done, if anything, to relieve the defective conditions and their causes? A. I have got some of my reports here.

Q. Kindly get them, Doctor, and tell us briefly. A. Of course, there are other industries where I have not made full investigations; that is, I have taken various factories in the industries. One of them was the tobacco industry, the manufacture of cigars and cigarettes. The result of the investigation into cigars and cigarettes is that we secured the proper ventilation of a large number of such places.

By Commissioner DREIER:

Q. Is there any way you can enforce that, unless you can get co-operation from the employers; you cannot enforce ventilation in these factories? A. We put in an order under the existing law, and if that is not obeyed there is nothing left but to take the matter into the courts. They would undoubtedly, if they had chosen, have beaten us in the courts. But there are many other conditions, and we can keep annoying them so much that they think it probably cheaper to go ahead and put in the appliances and comply with the order rather than to hire lawyers and take the matter into the courts. Some of these have done it voluntarily, and changed the existing conditions simply upon our recommendations.

Q. But you have no power, if a man refuses to comply with your order,—for instance in the industries you have described,—to make him put in ventilators? A. We have no section in the law which forces him to do that. We have a section on ventilation, but the section is wholly inadequate.

By Mr. ELKUS:

Q. What is an occupational disease? A. I distinguish between occupational disease and industrial poisons. I think the term "occupational disease" is entirely too broad.

Q. Suppose you distinguish for the Commission the difference between those two. Occupational disease may cover everything? A. It covers everything, because a person may be suffering from a disease which is secondary to a poisoning. That is, they may work in a paris green factory and get arsenic poisoning, and then have a number of nervous symptoms which may follow that arsenic poisoning, and while the disease may be due to arsenical poisoning, it is not due *per se* to the disease which he first had — arsenical poison; so that industrial poisoning is the main thing to get at. In fact, where we have machinery creating dust, that would cause a condition under the section of the law relating to dust-creating machinery. We can go in there and issue an order, and force him to put in a dust-removal system.

Q. Now, suppose it is not dust. Take the case you mentioned, poisoning by a paris green factory. A. We could make them do something.

Q. What can you make them do? A. We could make an order — in a certain part of that industry, where he has got dust producing machinery, we could compel him to put in machines or compel him to put in hoods or pipes, and insist upon sufficient power to entirely remove that dust, and make them put fans in that portion of the building. If he does not comply with that then we could take him into court and prosecute him.

Q. That is to bring suit against him? A. To bring suit against him.

Q. For a fine? A. Yes. In the case of chemical works where there are certain acids used, certain fumes, we are absolutely

powerless, because all the law says is that fumes of acid must be removed by proper ventilation as far as practicable, but in court they will bring a lot of experts on the stand that say it is impracticable, and we have no section in the law to say what the standard is.

Q. Then, doctor, do you think some provision of law should be made, fixing a standard? A. I think such industries would not obey such regulations — we cannot have any hard and fast general standard.

Q. You think it should be left to the Commissioner's discretion? A. I think that it should — that after investigation a board or a committee of experts should control it on the plan of the British and foreign government. That they should investigate these conditions and then make recommendations as to certain rules and regulations to cover them.

Q. Do you find that they do that in England; they have a Commission for it? A. In England they have a Medical Inspector.

Q. How many? A. A commission appointed by Parliament which consists of a Medical Inspector of Factories. They have a chemist also, and then they have a specializing agent, that is the City Inspector of Electricity and a Chemical Inspector. Then they take some expert who is a professor or has the chair in some of the big universities and specializes in that way and make him the head. It usually consists probably of three or four.

Q. They examine industries and decide practically what should be done to improve ventilation? A. Yes, they make reports.

Q. They make reports; is their decision final? A. No, their decision is not final.

Q. Who reviews it? A. They report, the report is made sometimes to the Home Office, which in Great Britain controls the factories, and then goes over to Parliament, which has usually given the Home Office authority to make such rules and regulations. The legal part of the matter I am not conversant with.

Q. If we were to put any such plan in operation in New York city, it would include the appointment of yourself as one of the Commission, a chemist, possibly, and a mechanical engineer? A. Why, not necessarily. They could appoint a committee of experts, and have the Department officials work with them on it. So far as I understand, the legislature would have to make the specific statutes for us; different sections to work under.

Q. Now, Doctor, tell us what you found in the human hair industry, what you did, what conditions you found, and what suggestions you have to make, taking up that particular industry, to improve things, and what power you have? A. In the human hair goods industry we rather lack power to use summary enforcement. I made a recommendation to the Commissioner some years ago that the manufacture of human hair goods be included under Section 100 so that we might use summary methods to enforce cleanliness.

It is a peculiar industry; the industry has grown, probably, within the last eight or ten years, and has been largely in converted tenement houses — converted dwellings in tenement houses, and in small stores. The large manufactories are few.

Of course, the conditions under which the hair goods are made depend a great deal upon the structural conditions of the building. They are unsanitary. That is from an idealistic standard, that is as an ideal hygienist, I say unsanitary, but as a medical inspector it is a difficult thing to enforce any better conditions.

It is not a fit industry for children to work in, and yet we find there are a large number of child workers.

Q. Why is that, doctor? A. If I should relate my own personal experience —

Q. (Interrupting) We want you to, because we may have to recommend to the legislature measures prohibiting children from working in these industries. A. Hair itself is a splendid locus for disease. Then I find hairs are swallowed. Any one that has had any experience in swallowing one small hair can realize what that condition is, when you appreciate that these young children are working all day long in a close atmosphere, working over this hair which is covered with flour when they tease it or they comb it.

Q. Flour? A. Ordinary flour or cornstarch to tease this hair and keep it dry, and try to keep it clean. The dust is being taken into the mucous membrane, and the nose and mouth, and being swallowed together with these hairs. These hairs then go into the intestinal tract. I have myself personally gone in human hair goods places and stayed there for a time —

Q. And inhaled the accumulated dust? A. I know I did because I made certain examinations afterwards. In fact I have made microscopic examinations which convinced me that I swallowed hair. If I did that, I can imagine what workers who had been in there from day to day would do.

Q. Tell the Commission what this swallowing of hair would produce in a girl eighteen or even sixteen years old — Are they working before sixteen years of age? A. In some places I have found them below sixteen.

Q. Tell us what effect that would have. A. It would cause irritation in the stomach and irritation in the intestinal canal, and would nauseate and cause vomiting and set up a condition of gastritis.

In my experience a great many neurotic conditions are traced back to conditions of irritation in the intestinal tract and impaired digestion, neuritis and irritation of the stomach. Besides that we know, for a fact, that the Department of Agriculture of the United States, the Federal Bureau in 1908 experimented and found out, and state it as a definite fact that tuberculosis germs are carried into the stomach when swallowed; that tuberculosis is, in fact, transmitted not alone by taking them into our lungs; that the germs are transmitted more by swallowing particles, and then they are transmitted to the blood in that way, although in my analysis of conditions I have found in tuberculosis the germs, disease-producing germs, are taken into the stomach, and if there is any machinery or anything like that in a manufactory, which is dust producing, you are going to have conditions in there which are dangerous.

Q. That would apply equally to grown people and children? A. Yes, but the children are more susceptible to disease than adults.

Q. Yes. The hair used in these factories is largely the hair of dead persons? A. I do not know; I have tried to get reports from the Federal Reports, but when you write to the Bureau, it takes a long while; most of the hair is imported.

Q. From China? A. The cheap hair comes from China; as to whether it comes from dead people or not I don't know.

Q. No Chinaman parts with his queue when he is alive? A. Well, they are doing it now.

Q. Well, not in great numbers? A. Yes, in large numbers.

Q. The Chinese, in China? A. In China; the young men are rapidly becoming Americanized.

Q. In that event, whether the Chinese hair comes from persons who die from disease or not, or whether from living persons — that is to say, whether healthy hair or not, it has disease in it? A. That we should be able to find out from the Consular Reports.

Q. Is it fair to say, as to what you say about the diseases that are likely to occur from handling human hair, that there is danger of consumption and severe stomach disease occurring among hair workmen? A. I cannot find any. There is no way of finding out definitely.

Q. The Commissioners understand that you yourself went in and started in the hair factory.— you stayed there for the greater parts of days, and made your examinations of the industry — you inhaled the dust and hair, and you judge from that what the effect would be on young girls? A. This analysis which I made myself.

Q. What percentage of young girls are working in these factories? A. In the hair goods business I should say that from 80 to 90 per cent of the workers are young people.

Q. Do they eat their meals there where they work? A. Yes, and even in the large factories they eat their meals.

Q. Most of them are not very clean or sanitary? A. So far as personal hygiene goes, a great many of them are of the class — a standard of cleanliness — well, they are not the same as my standard.

Q. You heard Miss O'Reilly testify as to the human hair factories which she examined? A. No, I did not.

Q. When the hair comes from abroad, it is packed in some sort of a disinfectant, is it not? A. Not that I know of; I have not seen it; some hair is packed in bales.

Q. And when the hair is taken out is there some sort of a powder or dust that comes from it? A. There may be in some, but I have not seen it.

Q. What is that dust? A. That I don't know, for I have not analyzed it.

Q. I think Mr. Goldberg, who is a human hair manufacturer, said it came into the factory in some kind of a disinfectant.

Commissioner DREIER: I think the hair is supposed to be disinfected before it comes into the country.

Mr. ELKUS: All hair is.

The WITNESS: No, not German hair, nor European hair. I asked one manufacturer, and he said it was not disinfected.

Q. They don't disinfect it? A. They don't do anything, but in the processes through which it is put, if there are any germs in the hair when it comes in, they are eliminated after that process; the minute the hair leaves the press and they begin weaving the hair, there is no sign of any germ condition, or matter present in the hair then.

Q. Is the human hair industry any more dangerous by reason of the character of the occupation than a number of others? A. That is not the most dangerous industry, no.

Q. That is only one? A. That is only one.

Q. What suggestion or recommendation would you make to the Commissioners with reference to that particular industry, as to prohibiting girls, for instance, working at it, or as to the sanitation? A. I think that if we had a section in the law covering dust of any character, requiring summary provisions for its removal as Section 79 covers the dust-creating machinery, I think the Department could definitely deal with the dust-creating industries.

Q. How would you get rid of swallowing hair? A. They would have to work where there was an exhaust system that would carry that dust away from the workers. It seems to me from what I have seen as I have stated, in visiting establishments, that there is no industry in which the conditions cannot be made better, and in fact all the dirt taken away — any line of manufacture.

Q. It is not a very serious thing? A. The amount of hair that would be taken away would be very small.

Q. It is not a very expensive thing to put an exhaust from the table where the workers are? A. It would not carry away much of the hair — simply the fine dust.

Q. And that is practicable? A. I do not see why it is not.

Q. You think it would be productive of saving health and life?

A. I am certain it would.

Q. Then they would not have to prevent the young girls from working there? A. No; there is no industry but that can be made safe enough for anybody to work in; I think that any industry can be made reasonably safe.

Q. Certainly, enough to protect life and health in the building?

A. Yes, and it would even result in a saving in the cost of manufacture.

Q. And there would be a direct saving to the public, because the people all go to the hospitals to be treated? A. No; as a rule, a great many will not, because they are only open in the daytime, and they cannot go in the daytime; many will go to the drug stores for treatment.

Q. Anyhow, it would be a saving in the life of the citizens, men and women — which means a saving to the city? A. It would mean conservation of life.

Q. Now, Doctor, is there anything more you want to say about the hair industry? A. No, outside of the propriety of eating their meals.

Q. That is, the eating of their meals right next to the work? A. Something ought to be done to stop that absolutely, because it means it is easy to swallow the germs, and besides, someone is going to buy the hair on which something is apt to come from the meals. Every place I go in I give a lecture of about 15 minutes; but I have taken the trouble to go back again after giving these lectures, and I find exactly the same conditions.

Q. Would it not be a good thing for your Department to formulate some simple rules and regulations, or advice, if you choose to put it that way, which could be printed and conspicuously posted in a factory? A. Why, it would be good, but I doubt if it would be read very much. I think you could do more by an educational campaign, and resorting to summary measures.

Q. I agree with you that the best method is summary power to enforce reasonable regulations; would it not be productive of same good if you instituted an educational campaign along these lines? A. Yes, sir.

Q. Tell us about some of the other industries; the Commissioners would like to hear about them.

The VICE-CHAIRMAN: I don't know whether you can answer this question or not, but you say this industry is about ten years old.

The CHAIRMAN: It has grown largely — it is practically more than ten years old, but since the introduction of rats, puffs and those things — wigs — it has only grown since then.

The VICE-CHAIRMAN: What did they make them out of before that?

The WITNESS: The women did not wear them before that.

The VICE-CHAIRMAN: I mean the work — what did they do before that?

The WITNESS: They were made out of hair that they bought around the country, but there was not a large demand for such things in this country. The best wigs are made out of the best hair.

Q. Made mostly for rats? A. Yes, sir.

Q. And they wear them right next to the head too?

Commissioner DREIER: Should not this industry be taken entirely out of tenement houses?

The WITNESS: I believe that any industry should be kept out of tenements.

Commissioner DREIER: They do a great deal of this work in tenements?

The WITNESS: Yes.

The VICE-CHAIRMAN: You mean where people are living?

The WITNESS: Where people are living.

Q. Doctor, have you heard of any case of any person getting disease from this human hair? A. There were reports of some physicians attributing certain diseases to the use of this.

Q. What diseases? A. In one case, I understand a medical man attributed leprosy to it, but I doubt it very much; it is rather far-fetched to say that some of the diseases that they claim were found to be due to the hair; I found pus producing bacteria; it might possibly have a little effect if they had a cut in the head.

Q. If a person wore one of these next to the head, would it produce serious results? A. Yes.

Q. It is not a condition to be encouraged. Now, tell us about some of the other industries that you examined. A. I have a long list of industries here that I have gone into. The industries that I have enumerated in here I have compiled from factories in the State.

I took up the question or matter of incandescent mantels for these gas lights; there are quite a number of children in these places, but not so many in this State.

Q. Where are they located? A. There are a couple in New York city, here — that is — Greater New York, one in Brooklyn, one in New York and further up the State.

Q. Where do you mean, Schenectady? A. No; I think it was up around Oswego — somewhere about there. The principal difficulty as to this was the glare of the lights, and to the young people who sit in a framework where they dip these mantels in a solution of collodion which forms carbon monoxide, and combustion of the gases.

Q. (Interrupting) From the fumes? A. Yes.

Q. Does it produce an effect the same as alcoholism? A. The same.

Q. Young girls and boys are, to use plain English, drunk? A. Yes, there are a number of other establishments where they use these things, and I have observed that the girls are exhilarated; they tell me that they have all the symptoms of a person who took his first drink of alcohol.

Q. It would affect them permanently? A. Well, where wood alcohol is used, there is a likelihood of blindness being caused.

Q. Blindness? A. The effect of wood alcohol, whether you drink it or whether it is absorbed by the mucous membranes, is to destroy the optic nerve.

Q. How old are the girls and boys? A. Some between 14 and 16 years of age — running up to 17 and 18.

Q. Do you mean to say that these girls between 14 and 16 years of age go into these factories and because of their dipping these mantels in that solution, the fumes make them intoxicated, and may produce blindness? A. Yes, sir.

Q. How can you prevent it? A. Ventilation is the only thing.

Q. What kind? A. The ordinary means.

Q. An exhaust? A. Yes, an exhaust — to keep the air moving around the room, so as to remove the fumes.

Q. How much air? A. I think they ought to have 3,000 to 4,000 cubic feet per person, or even 5,000.

Q. Is it a perfectly feasible thing to do? A. Yes.

Q. You have no power to remedy that at all? A. Absolutely none.

Q. Do they get large wages? A. Very small.

Q. What do they earn? A. I don't recall that.

Q. Three or four dollars? A. Probably three or four dollars, or five dollars a week.

Q. Did you ever know of a case of blindness to result from it? A. I have not been able to take the question up. I understand that there has been appointed a committee, in the city, but what they have done, I don't know; I have no statistics.

Q. Outside of blindness, what is the result or effect of inhaling these fumes by the young girls of from 14 to 16 years of age here, these young children? — do they get tuberculosis germs? A. I would not say that, no.

Q. Do they get the liquor habit? A. I have never studied the question that far, but it would seem to me that it would destroy their vitality — that is, the power of resisting disease.

Q. How many hours a day do these children work in these factories? A. Under 16 years, the law only permits them to work from 9 to 5.

Q. From 9 to 5? A. That would be seven hours a day.

Q. And an hour for lunch.

Commissioner PHILLIPS: Would you advise that in these industries, children be prohibited from working at less than 21 years of age.

The WITNESS: I would.

Q. What would you recommend in the way of legislation to remedy that — that you be given power to enforce means to create a current of air? A. In my 1910 Report I recommended to the Commissioner that children be prohibited from working in that industry.

Q. That children be prohibited absolutely from working at it? A. Yes.

Q. Under what age? A. Say 18.

Q. Now, what other industries, Doctor, have you made a study of? A. I will give you a list of industries here. Incandescent Mantels, Laundries, Printing, Photo-engraving, Lithographing, Bookbinding, Cigars and Cigarettes, Paper Boxes, Jute, Metal Stamping, Furs, Pearl Buttons, Alkalis — Paris Green, Ultramarine blue, White Lead, Lead Foil, Galvanizing Works, Gypsum Mills, Rubber Insulating, Pumice Grinding, Shoes, Flowers and Feathers, Dry Cleaning, Lacquering, Postcard Coloring, Tailoring and Textiles.

Q. Now, take up the Pearl Button industry; have you made a special study of that? A. I did.

Q. What kind of people work at it? A. The majority of the workmen around New York city here, were foreigners — Hungarians, Slavs and Poles.

Q. Men or women? A. Pretty equally divided.

Q. Children? A. Young girls.

Q. How old? A. When I first started the investigation in one large factory here we found, oh, a hundred and some odd children under 16 years of age. I meant to give 50 or 60 physical examinations, and this I did; I did not have the power to do that, but simply went in and took it upon myself to go ahead with the examinations.

Q. Do you believe the Medical Examiners should have the power to make examinations? A. I do.

Q. A physical examination as the heart, lungs and other organs, and sputum? A. I did not take up the sputum, but I tried to make it as thorough as I could, with the facilities which we have.

Commissioner PHILLIPS: What is the pearl button made of?

The WITNESS: It is made of "mother-of-pearl,"—made of two kinds of pearl shells, the clam from the Mississippi river, and the Australian.

Commissioner PHILLIPS: Is that the material the buttons are made from in Rochester?

The WITNESS: Yes, the same thing; they make that mostly from the Mississippi clam.

Q. There are several factories in Rochester, are there not? A. There was one — only one working when I was there.

Commissioner PHILLIPS: What is this vegetable button?

The WITNESS: That is what we call the bone button — the vegetable.

Commissioner PHILLIPS: Do they use that there?

The WITNESS: The International people make both kinds.

Commissioner PHILLIPS: The vegetable ivory I had in mind? Tell us particularly about that — is there a dust from it? A. There is. The pearl comes in — that is, the original shell comes in and is soaked. Then after that, it is cut by a circular saw.

Q. How large is the piece? A. About this size (indicating); the Australian shell comes as large as that (indicating).

Q. Oyster or clam shell? A. Sort of oyster — mollusc.

Q. From some place in Australia? A. Yes.

Q. What is the vegetable ivory? A. That is a sort of a nut that they have in South America.

Q. A black nut? A. It is black on the outside and white on the inside; it runs about this size (indicating).

Q. Does it come from a tree? A. I don't know whether it is from a tree or from a large-sized bush. I think it is a tree, though.

Q. Then it becomes hard? A. Just exactly the botanical description — the botanical thing I cannot tell you about.

Q. Describe what they do. A. They get these pearl shells, and cut them up into squares on a circular saw; that is done by adults. The danger in that is the particles of the shell flying up into their eyes, and they are inhaling it; some of them have a glass protection — they have a piece of glass here and work along there (indicating). The only place they used that was in Rochester; they were the only people who did anything to try and protect the workers at all.

Commissioner PHILLIPS: Is that the Rochester Button Company?

The WITNESS: The International Company. These pearl shells — we found the greater portion of them was silica and other particles of glass; there is no way that we can correct it except by this glass thing.

Q. That glass affair — that is a very cheap and simple thing? A. Yes.

Q. You have no power or means in your Department, or any Department of the State, to enforce that simple protection? A. There is nothing in the law that says we shall order that.

Q. You mean, some power should be given someone to issue such an order? A. Yes, sir.

Q. Go ahead now with the next step. A. After that, they cut these — drill out the block for the button.

Q. Who does that, adults or children? A. Oh, women and young girls. I have seen some children working at it, but under the law we cannot control that, because it is what they call wet grinding.

Q. When there is wet grinding, you cannot do anything? A. But the analysis which I made, and the result of my assistant's

analysis, shows that this so-called wet grinding does not keep down the dust.

Q. Did you yourself stay in these places and inhale this dust?

A. Yes; we took away specimens from whatever we did. I have taken a piece of gauze, and have taken the dust right off that gauze that was caused by this so-called wet process.

Q. How many minutes did it take for the dust to accumulate?

A. Probably ten or fifteen minutes.

Q. You accumulated enough dust to fill it? A. We accumulated enough dust to fill it.

Q. What is the effect on them of inhaling that dust? A. It is an organic dust, according to the researches of the Agricultural Bureau of the Federal Government. I have had a number of my friends and comrades in their work look up deposits, and have not been able to find very much, but the silica will eventually go down there. If it does not do that, it is going to be found upon the mucous membrane of the nasal organs.

Q. What is the ultimate effect of it? A. That they are going to be subject to bronchial conditions and nasal conditions.

Q. And sometimes — leads to consumption? A. Of course, when you have a broken vitality, you are going to get tuberculosis. I have examined quite a number of girls, and have found them suffering from bronchitis and laryngitis.

Q. Go right ahead, Doctor — what is the next thing that is done? A. There are a number of other processes — grinding and drilling processes; it all depends upon the size of the factory, whether they have improved machinery or old hand machines. In the larger factories, they have up-to-date machines, which have an exhaust system from the emery wheels that do the grinding, or from the drilling machines which do the drilling; then, they have a different process — backing and drilling — that is where it rolls or curves out, and puts a hole through the button; a large number of hands are employed; I find children from 15 to 16 years old working on the machines. After we got through with them, they did not use the children.

Q. How is that? A. In a large number of places, we had prosecutions against them for violation of that law.

Q. They did not comply with the child labor law? A. Yes. I suggested to the manufacturers that it was not a very good

thing anyway, and that we were going to try and get legislation on it and see if we could not stop it.

Q. Where was that? A. In Long Island City. Then after the button goes through that process, it is put into tumbling barrels to still further polish up; they are mostly Slavs doing that work — many have boys from 16 to 17 years of age, or just over 16 years of age, so they don't need papers.

From there they go to the sorting or counting room. They have children who sort the buttons and count them. Some large establishments have counting machines where they run from one form of work to another, count them automatically.

My analyses have found some dust in the counting room; then in the drill room they have exhaust systems. All of these children stoop over a table and count in this way. The effect on the eye is very bad, and the effect on the health is bad.

Q. What could be done to remedy that? A. The automatic counting machine is the best remedy for it, but, of course, that would require special legislation, you cannot do that at all; the only other way is to keep the children from doing that work.

Q. In other words, it is not a business where a child should be employed? A. No, it is not.

Q. And as far as the adults that are employed there, there should be protection in the shape of this glass you told us about at one stage of the work, and I suppose exhausts to carry away the dust? A. Yes.

Q. And this all could be done if you had the power? A. Yes, I think the Department of Labor should have the power.

Q. Is there anything further about the pearl button industry that you want to tell us? A. No.

Q. The great vice there is the employment of young children? A. Yes.

Q. And the inhaling of dust and other material which has a very serious effect upon them?

(No response.)

By Commissioner DREIER:

Q. May I ask a question? The shell which comes from the Mississippi and Australia is kept in big tanks? How is it kept?

A. They have large vats filled with water, which they keep it in; that is to soften it down.

Q. Is that water ever changed, do you know, or is it stagnant?

A. Why, they let it stay just so long; then the vat is cleaned out and fresh vats of water are filled, but I doubt if they add any water to it except when the water has evaporated and left certain shells bare.

Q. Is that stagnant water bad for people? A. Why, it doesn't stay there long enough. Of course, we know that stagnant water is a good mosquito breeder, and mosquitoes are carriers of certain diseases.

By Mr. ELKUS:

Q. How about any odor from the shells? A. There is a marked odor, but that you can't keep down. That's the usual organic odor of the clam, but that's an odor that is part of the industry. It is not very pleasant when you go in there.

By the VICE-CHAIRMAN:

Q. It is not harmful, is it? A. No, no odor is. It may offend your senses when you go in there, if you are very particular, but after you get around the industries much, you don't become offended.

By Mr. ELKUS:

Q. What do you consider the most dangerous of the occupations to those employed there, in the state, that you have investigated. A. I think that the most dangerous occupation in the state, in proportion to the size of the industry, is the textile.

Q. You mean the manufacturing of what? A. Manufacturing of cotton, wool and jute, and carpets and upholstery. All of those occupations where cotton and wool are used, where they are carded or spun.

By the VICE-CHAIRMAN:

Q. You mean danger from accidents? A. No, I mean disease. I say, industrial poisoning. Now, there is a case where you have

a condition set up that will prove fertile ground for the growth of disease germs.

By Mr. ELKUS:

Q. Now, take some particular one of those industries you have examined, and to tell the Commission about it. A. Why, I took up the calico print industry; you might say that's part of the textiles. In that —

Q. (Interrupting) Calico printing? A. Calico printing, yes.

Q. Where are those factories? A. There is one in New York city, but they are not doing very much now, and there is one at or near Haverstraw — Garnerville, that's all in this state. But, of course, there are certain things in that industry that apply to the other textiles. In certain of the textile industries they singe the goods; they call it gassing. Mostly adults work at it, though; nevertheless, there is danger from carbon monoxide, danger from the poisoning from that, and from the dust that arises in that singeing. That can be overcome by the use of electric gassing.

Q. Why do you say that is the most dangerous occupation? A. It isn't the most dangerous in this state, but there are many women and children employed in that, to such a large extent, in the cotton industry. There is a smaller industry in this state which is probably one of the worst industries you might consider, and that's the manufacturing of phosphorus matches, but we only have two such factories in this state.

Q. Where are they? A. One is in Brooklyn, and one is in Oswego. I made an atmospheric analysis in both places.

Q. Why are they so dangerous? A. Because of the phosphorus.

Q. Are children employed there? A. Children are employed there and we have no power under the law to prohibit their working there.

Q. Tell us how phosphorus matches are made. A. The phosphorus match is made by using this white phosphorus, which is made up into a paste. Then this paste is put into a machine and wood, which is made up into splinters, is put into frame works in this machine, and then this machine carries these splinters along and dips them into the phosphorus; then they

dip them into an igniting solution, which is made of chromide of potash, and then the matches are taken out and dried and packed in boxes.

Q. What do the children do? A. Under the law, the children can do nothing but put these boxes together in which the matches are already packed, but I am pretty certain that the children pack the matches.

Q. In the boxes? A. In the boxes, at times. They are exposed to just as much danger as the men who work on the phosphorus machine; they are exposed to just as much danger as the female adults, and females over sixteen, who sort the matches and put them in the box.

Q. They do that with their hands? A. They do that with their hands.

Q. Naked hands? A. Yes.

Q. What is the danger? A. The danger is the absorption of this phosphorus. They get phosphorus necrosis.

Q. What does that mean in plain English? A. That means, practically, decay of the bone — the bones, especially, of the jaw and there is —

Q. (Interrupting) Are there many such cases up there that have been reported? A. I find great difficulty in securing statistics. I asked the help in the places, and I got very little information.

Q. They were afraid to tell you? A. I presume so. Although the proprietors of the factories will admit that they have a few cases, it is hard to trace them up. That is, it is for me. I haven't the facilities or power to go tracing up. I take the industry from the question of what is the dangerous element in that industry, and try and find it directly in the industry; so I take up and analyze atmospheric conditions in those match factories, and I have the results here.

Q. In a phosphorus — A. (Interrupting) In a large factory — well, of course, there are only two, but in the larger factory which was provided with a ventilating system in the dipping room, the amount of phosphorus shows eight-tenths grams of phosphorus per million litres of air, with six dipping machines. That is, figure a gram of phosphorus as fifteen grains and you

can see that that's a pretty large amount of phosphorus. That is the actual phosphorus that we found in the air. That wasn't in the dust. We pulled so many litres of air through a wash bottle and everything was sterile and kept under the most sterile conditions and free from dust, and then took that back to the laboratory and analyzed that for the amount of phosphorus. That million litres, of course, is a large amount of air, but if there is that much phosphorus in a million litres, you can just imagine just how much phosphorus is being absorbed by a person who is breathing that air day after day; and that was where they had a ventilating system.

Q. Well, Doctor, what would you suggest to remedy these things? A. Why, I would absolutely prohibit women working in a phosphorus factory, or any minors at all. I wouldn't have anybody but an adult working in there, and then under the most restrictive measures; and as a matter of fact, I think that the use of white phosphorus should be entirely prohibited in this state. I don't think white phosphorus should be used for matches.

Q. Where else is white phosphorus used besides New York city? Are the Swedish matches which are imported here — A. (Interrupting) No, that is a sort of red phosphorus.

Q. Red phosphorus? A. Red phosphorus; that's a non-toxic phosphorus, harmless.

Q. Where does white phosphorus come from? A. Why, I don't just know.

Q. In the state or out of the state? A. It comes from out of the state.

Q. Out of the state, so it is not using up a home product? A. No. Phosphorus is manufactured, you know, but I don't know of any chemical place in the city where they make phosphorus. They may, but if they do —

Q. Why would you prohibit women and children absolutely from being in these factories any more than you would adult men? A. Well, an adult is naturally physiologically stronger, and can withstand the ravages of the disease better. I think that we should protect the minors, and where an occupation is known to be dangerous, restrictive legislation is the only way to try and conserve life or health in it.

By Commissioner DREIER:

Q. Aren't those white phosphorus matches prohibited in European countries? A. They are. A number of the European countries have gotten together and absolutely prohibited them.

Q. Why shouldn't we prohibit them? Is there any reason? A. That's a matter for legislation. I would recommend prohibition.

Q. Prohibition entirely? A. Yes.

By the VICE-CHAIRMAN:

Q. What is the white phosphorus, the match that strikes any place? A. White or yellow, strikes anywhere; so-called parlor match. There are three kinds of matches, the match that you strike on the box, where they use the red phosphorus, the phosphorus that is used on the box; but then the French Government control what is known as a susquisulphide phosphorus, which is a phosphorus you can put on a match and strike anywhere, the same as the parlor — harmless.

Q. Do they control it? A. Why, the French government controls it, but I understand the so-called match trust also have that, and have been willing to give it to any of the manufacturers that want to use it. I questioned the superintendent of one of the so-called match trust factories, and he said the only objection to the match was that it was affected by the weather. They had been making it, but they discontinued it because complaints came in, and the matches were sent back to them, and they lost some money.

Q. Is the Oswego Match Factory in the trust? A. That's the factory I speak of.

By Mr. ELKUS:

Q. Doctor, how about the printing industry and typesetting? A. Why, of course, typesetting now is mostly in the larger places done by type-setting machines, the monotype and linotype. The industry at its best is not a good industry, although the introduction of the type-setting machine has done away with a great deal of the dust and danger that used to be found when they set

type by hand. I haven't taken up that industry very much from a dust analysis, but I have made some analyses of air around the linotype machines, and I have failed to find any lead in the air. I didn't take the dust from the floor, but I probably would find some trace of lead, naturally, because of the type being made of lead and antimony.

Q. Have you anything to suggest as to the trade of typesetting?

A. No, because with specific sections of the law on cleanliness and ventilation of work rooms that trade can be controlled.

Q. How about the printing industry altogether, as a whole?

A. Of course, under the printing industry there are numerous adjuncts.

Q. Electrotyping, lithographing and photo-engraving? A. Those can all be overcome by proper ventilation. If we had a proper standard, a specific section of the law regarding ventilation, the danger in that industry would be overcome.

Q. You mean to say you would have to have legislation creating a standard? A. Yes, if we had a specific section covering all dust-creating machines, all fumes, all gases, with a specific clause for a hood with pipe connected with exhaust fan of sufficient power to remove those fumes from the worker, and to operate it continuously, I feel certain we could effectively deal with any of those conditions and make them safe.

Q. What is the result of the conditions under which they work now? A. The electrotypers—every one I have seen, have been the most husky individuals I have ever run across; all of fine physique, because they couldn't work at it if they were not. It is a very laborious occupation, carried on under high temperature and smoke and fumes. The majority of the electrotyping places in the larger plants have tried to comply with the law, by having hoods and exhausts over metal parts and ventilating fans in the room. It is a matter for a mechanical engineer to devise the machine for proper removal of those things, but the conditions can be removed.

Q. How about the typesetters? A. It's only in the small, what they call "job" places that they use the hand type, and the greater part of the large printing places have endeavored to comply with the law by putting hoods and pipes over their

metal pots, on the type-setting machines. Of course, the linotype sets and casts the type all in one, whereas the monotype has a perforated roll which the operator works off, and then this perforated roll is run through a separate machine which casts the type.

Q. Is there any thing in particular as to these industries you have to suggest? A. No, the danger in that industry is entirely due to the dust which contains the lead and antimony.

Q. Only men are employed? A. No, they employ women. There are women typesetters, who work linotypes in large newspaper offices, but then, of course, the larger plants have photo-engraving and lithographing and binding all combined with their printing plant; but they are really separate industries.

Q. Is there anything about binding you desire to call the Commission's attention to? A. Except the dust, that's all, and the conditions under which it is carried on. It isn't the industry itself, so much, as the condition under which the industry is carried on that could be bettered.

Q. How about photo-engraving? A. That is dangerous from the use of acids, the fumes arising from the acids used in etching.

Q. What danger is there in that? A. There is danger of pulmonary conditions, and there may, of course, be accidents and burns, and there is liable to be intoxication from the ether used.

Q. Now, is there any other occupation that you would like to tell the Commission about that you have investigated, and make suggestions as to remedial legislation with reference thereto? A. In all the industries, the remedial legislation should be entirely regarding the removal of dust and ventilation, and permission to examine the workers.

Q. Let me ask you this, Doctor. Do you issue any bulletins to any of the employees? A. I do not.

Q. Or your Department, instructing them how to protect themselves? A. No.

Q. Could not that be done with some good result? A. I presume so. I always make it a point to give them a talk in every place I go.

Q. Of course, you can't reach every factory in the state? A. No.

Q. Wouldn't you be able, by issuing bulletins, to teach them in some measure how to protect themselves from some of these diseases? A. We could, yes. Of course, the question is a three-sided one. It takes up three points, the point of the industry itself, and the conditions surrounding the industry, the personal hygiene of the worker, and the housing conditions. We can take up the industrial end of it and remedy those conditions, but I think that the local health authorities should educate them in the housing condition and let the Educational Department take the child and train the child, and show the child how it should observe these safeguards.

Q. You mean the Educational Department of the city? A. Any of the Educational Departments. A child goes out of the school and knows nothing about the factory at all, and we may say that eighty to ninety per cent — well, I won't say eighty to ninety, but the majority of children who go out of school go into factories to work.

Q. Then you believe there should be something in the nature of industrial training in school? A. The same as in Germany. They teach industrial training in the High Schools of Germany.

Q. They teach them how to take care of themselves when they work in factories? A. Yes, certain safeguards are put there for their use and they must leave them there and not remove them.

Q. You would favor the introduction of some such course in our own High Schools? A. I would, yes.

Q. Now, Doctor, will you explain — well, you have no Bureau of Medical Inspection; you are the whole Bureau? A. I am the whole Bureau, yes.

Q. And you would favor the establishment of such a Bureau? A. I wouldn't say a Bureau. I think there should be a Division of Industrial Hygiene to take up all these questions, because a great many times it isn't —

Q. (Interrupting) Consisting of what? A. Why, I think it should consist of both medical men and men who have had sanitary training, biologists and chemists, because a great deal of the real sanitary research work has not been done by medical men; it's been done mostly by biologists and chemists.

Q. Have you anything further to suggest about a Medical Bureau? A. No.

Q. Are there any other employments or occupations where children under sixteen should not be permitted to be employed at all?

A. Well, I think in the pottery industry I would prohibit children under sixteen.

Q. Why? A. In the first place, there is liable to be silica in the dust after the ware has been fired. Then there is danger of the lead poisoning in the dipping. It's a manifestly dusty trade.

There is one industry I haven't taken up much, but I think females should be prohibited from working in; that's the core making in the foundry industry.

Q. Explain that. A. In the foundries in the casting of the metal, where the metal is hollow inside, they have to make a core to fit in there, and these cores are made in molds and then baked in an oven, and in certain parts of the state a great deal of that work is done by females.

Q. Young females? A. Well, I haven't found any under sixteen, but it is a very dusty occupation. The clay that comes in there is of a peculiar kind, and of course they expectorate in it, and every thing else, and these girls have to handle it and then bake it. Then it is brought back and broken up again and there is a certain amount of silica and iron in that clay, besides organic matter, and they will inhale that; and there are conditions under which they work which are not of the best. Anybody who has ever been in a foundry of any kind knows what the conditions are.

Q. Are there any such foundries in New York State? A. There are.

Q. Where are they? A. I have been in some in Syracuse.

Q. Any other places? A. That's the only place that I went into the foundries.

Q. Any other occupation where girls or women should be prohibited, in your opinion, from working? A. Why, in the alkalis — certain chemical works I don't think women should —

Q. Tell me a little more definitely. A. I haven't taken up the chemical works very much, but in some of the places where they make chlorate of lime, the bad air and those things, they have girls and young women and they are in these chlorine fumes

and acid fumes all the time. It's a rather difficult matter, even by efficient ventilation to get rid of these irritating fumes in such places because as you approach the factory you would be bothered by these irritating fumes, and yet they have young women working at this industry.

Q. What is the result of these fumes upon young women? A. Why, it sets up irritation of the mucous membrane, that is, the lining of the nose and throat and mouth, and predisposes to pulmonary conditions — the invasion of any of the pulmonary troubles.

Q. Have you ever investigated any of the sugar-making industries? A. No, I have not. I know something of it.

Q. Tell us what you know about it. A. There, the men work under high temperature.

Q. How high? A. I never took the temperature, but they say it runs, oh, up around 200 sometimes.

Q. 200 degrees Fahrenheit? A. Yes, and the men can't stand it after it gets around 160.

Q. What happens to them? A. Why, they will be overcome by heat. It's hard to remedy that condition; it's a condition which is essential to the process; they need this high heat. If they bring the heat down they destroy the product. I understand the men keep stimulated all the time. They are mostly foreigners working in it, and they drink a lot, so that the evaporation protects them to a certain extent from this heat.

Q. What do they drink? A. The majority of them drink beer, they being German, some of them.

Q. You mean by drinking the heat doesn't affect them as much? A. They have a perspiration on them, and this water from the body acts as a sort of non-conductor, and, of course, there isn't such loss of vitality and such depression of the nerves.

Q. Can anything be done to remedy that? A. The only thing is shorter shifts for the men and more hygienic conditions.

Q. How long are the shifts now? A. That I didn't take up.

By Commissioner DREIER:

Q. In these places, for instance, in these chemical works and sugar refineries, there is no limit to the number of hours that

the men are supposed or are forced to work? A. I don't know of any law that will stop a man from working as long as he wants.

Q. As long as he is made to, you mean? A. As long as he wishes.

Q. What I want to know is, whether it would be wise, if it is possible to do so constitutionally or otherwise, to limit in these particular industries, the hours, making them very much shorter than an eight-hour day? A. As a hygienist, I would say so, but I don't know what the lawyers would say about that.

Q. As a hygienist, what would be the effect of an eight-hour day on these people working in the sugar refining industries? A. I think it would be pretty hard. There is one question that we have absolutely no law in this state on. That's the question of pregnant women. I think it's very important, and yet we have absolutely no law here at all.

By Mr. ELKUS:

Q. Doctor Rogers, in these industries, have you been informed that men work twelve or fourteen hours a day, and during that time they faint and are carried out and revived, and then come back and go to work again? A. No, nothing like that has been brought to my knowledge.

Q. You haven't investigated enough to know whether that is so? A. No, I didn't take up that phase of the work. I took up mostly where there were women and children.

Q. In some of these industries, have women who were pregnant been employed? A. Yes.

Q. You found that yourself? A. Yes, in the tobacco industry I found quite a number.

Q. What's the effect? A. Well, that's a mooted point. The home office in Great Britain investigated that, but I haven't seen the result of the investigation. Doctor Oliver, who is probably one of the best known authorities, says that he doesn't see anything harmful in it; that he has failed to find any data that would bear out the fact that working in tobacco was dangerous to pregnant women. I haven't been able to get any data myself.

I have questioned the workers and they don't give me any evidence that it is harmful. Personally, I don't think that a pregnant women should work anywhere. I don't think they should work in factories where children and others are, because it is more of a sociological reason, probably. It is sedentary, and if they go back to work the child isn't going to be taken care of, and it means an increase in infant mortality. The one to take care of it is the mother, and if the mother can't take care of the child, the child is going to suffer, and we are going to lose the child eventually, unless it is very, very rugged.

Q. Would you advise prohibiting pregnant women from working all the time or during certain periods? A. I think the only logical way is to prohibit them from working at certain periods. Switzerland has a law that they are not permitted to work for a period of at least eight weeks before a birth of a child, and eight weeks afterward. All the European countries have a law which prohibits a woman coming back to work four weeks after the delivery. I think we should have some such law here — a section of the law which will absolutely prohibit a women coming back to work for at least four weeks anyway.

Q. Doctor, you were speaking of the tobacco and cigar industries; do those produce disease? A. Tobacco dust is very irritating. According to certain statistics that we have, pulmonary tuberculosis among cigarmakers is very high, but there again you can't rely on it, because pulmonary tuberculosis is essentially a housing disease, and just exactly how much of the disease is due to housing conditions and personal hygiene isn't stated in the reports, but it will predispose to pulmonary conditions and to gastro-intestinal conditions.

Q. You have spoken of ventilation. What are the present methods used in factories for ventilation? A. They use the windows, they use exhaust fans, or in some of the most modern, they use a plenum system or combination plenum and exhaust system.

Q. Tell us what this is. A. The plenum system is where the air is heated and blown into a room. Some of the places call it combined heating and ventilation, and the outlets are supposed to be around the windows, to draw the air out. The exhaust is where there are exhausts with intakes around the windows and pull the air out. The combined plenum and exhaust system is

where the air is taken, screened, washed, and then sent into the room, and then another system of plenum pulls a corresponding amount of air away from the room.

Q. Has your Department any control over installing different ventilating systems? A. None whatever.

Q. You cannot compel any particular kind of ventilation system? A. No, sir.

Q. No matter whether it is necessary? A. No, sir.

Q. What suggestion or recommendation do you make to the Commission with regard to that? A. Why, I would recommend that the Department be given power to decide after inspection, and having a standard —

Q. (Interrupting) Is a standard possible? A. A standard is possible.

Q. It is? A. Yes, sir.

Q. What standard would you create? A. I would make both a standard of quality of air and a standard of quantity of air, so that in certain conditions if the air was not up to the standard, mechanical means could be ordered.

Q. Have you any power now at all over the matter? A. Yes.

Q. Where? A. In certain places where there is a dust-creating system, you can get around the ventilating law by attacking them on their machinery and forcing them to put an exhaust system on the machine.

Q. By beginning a civil suit? A. No, it's a criminal.

Q. That you can get very rapidly? A. That we can get rapid action on. I think even with that — if that section, as I say, would apply to all dust creating processes, we could get along.

Q. Now, how about using cellars as manufacturing establishments? A. Why, I don't think that cellars should be used for manufacturing purposes.

Q. Why not? A. In the first place a worker must work under artificial light all the time. There is no cellar that you can get daylight or sunlight, and sunlight is one of the best things we have to stimulate us, and the best medicine I know of.

Q. It is free? A. It is free, it does not cost anything, and if we can give the workers more sunlight, we would have less disease. It is a germicide, and to put people in a dark place to work, with artificial light will somewhat breed disease.

Q. You would be in favor of prohibiting manufacturing of any kind practically in cellars? A. If it had to be it would be under almost prohibitive legislation, I would say.

Q. Is there any provision of law at all which authorizes the Labor Department to act in that regard? A. Only in the Mercantile Bureau, that is all. We have a section on Tenement Houses; that is the only place we can do anything, and there even we have been beaten in the courts because if there happens to be an area way in the back of the house of a certain depth, under the law that is a curb, and outside ground, and we cannot prohibit them using it.

Q. Now, Doctor, about the cubic air space of each person in the factory, how much is that now by law? A. In factories it is 250 cubic feet; in tenement factories 500, and dressmaking establishments 1,000.

Q. Are these allowances sufficient in your opinion? A. Why, I think that is simply a makeshift. I do not think it plays any part at all in relation to the question of ventilation.

Q. You mean the standard is not a good one? A. It is a standard so that we can prevent overcrowding, but even then, what I term overcrowding is not prevented. They will get the workers all down to the end of the room where the light is, and you will have a condition there that is actually bad, and likely to produce results that there will be bad effects from.

Q. What is your suggestion about that, to have the ventilating system? A. If we had a strong section on ventilation, we could overcome it.

The VICE-CHAIRMAN: Under the way you are working at present, if you go into a factory to-day, you make an analysis of the air, it is quite likely you will go there on a day that they will have three or four windows open, and find it all right? A. As a rule when we make an analysis of the air, we make it under every conceivable condition. That is, I do not make it under just one condition. I take the actual working conditions I find in that factory — not one day — I usually go back to that factory three or four or five days, different visits, to find actual working conditions, and make a test of the air under those conditions. Then I would have the windows opened at several heights, to see what

the conditions are then. Then I will make tests at certain times of the year, to see what the conditions are. So that the tests are not biased, they are made under conditions favorable and unfavorable.

The VICE-CHAIRMAN: Without a ventilating apparatus of some kind, it is very nearly impossible for the owner of a factory to attend to the regulation of the ventilating, because the workmen won't leave the windows open; they think so much more of their personal comfort between heat and cold, that it has a bad effect on their system generally.

The WITNESS: Perfectly true. But windows are no guarantee of proper and sufficient ventilation. Places can be ventilated so that you can nail the windows up and not rely upon the windows at all.

Q. That is what they like to do, isn't it? A. That is what they want to do.

Q. They are afraid of a current of air? A. Yes, there are certain reasons that a worker sitting near a window is exposed to a draft, and that worker eventually will get a stiff neck. This steady draft on the neck kills the nerves there and paralyzes certain conditions, but the windows can be arranged so that there won't be any draft, a mechanical means used so that the air will be brought in and changed. I think it is up to the architect that when they build the building, the means should be installed just the same as they put in plumbing and heating.

Q. Are you familiar with the manufacture of thermometers? A. No.

Q. Do you know anything about it at all? A. I know how they are made.

Q. Do you know anything about the danger arising from that? A. The danger from thermometers is through the use of mercury.

Q. Do they employ children in that occupation? A. I have not been in any thermometer factories—yes, I have been in a place in Rochester, the optical people; for I went in there more on the grinding and the other conditions.

Q. Did they employ children? A. They employed children, but not on the polishing of glass, but whether they used children in the thermometer end of it or not I do not know.

Q. You are not able to tell us about it? A. I have not been able to get around to it. I have tried to cover most every industry I knew of, even if I made three or four visits to study the industry.

Q. Has the Department records of all these examinations and investigations? A. The Department has records of every examination I have made, yes — that is, not on my visits, but in cases where I thought orders were necessary, the deputy inspector detailed to work with me turned in cards, or I turn in cards myself.

Commissioner DREIER: As a result of your investigations, do you always find changes are necessary? In all the cases you have investigated, have you been able to make changes which have been satisfactory for that industry?

The WITNESS: Yes.

Commissioner DREIER: You have not been able to make them throughout the whole industry, though?

The WITNESS: No, not through the entire industry.

Commissioner DREIER: Only in individual cases?

The WITNESS: In cases where orders have been recommended.

Commissioner DREIER: Can you give us any record of the number of changes that have been made? Is there any record that you can give?

The WITNESS: I think the office could give you those records; they would be in the Chief Inspector's office.

Commissioner DREIER: Well, I would like those records, if it is possible; I think they will be valuable to have.

Q. Dr. Rogers, have you ever investigated the glass blowing industry? A. I have not investigated that.

Q. Do you know whether or not children are employed in that? A. I believe that minors are employed. I have not seen any

children. I was over to a place in Brooklyn. I did not see any children there.

Q. Now, take the lighting system; we have spoken of the ventilating system — how about lighting? Have you any control or authority over that? A. Absolutely none at all, except certain specific sections requiring that certain parts of the building shall be lighted.

Q. That is the staircases? A. Yes, sir.

Q. I mean sufficient light being given to the workers? A. No.

Q. You have no authority? A. No authority.

Q. You believe you should have authority? A. I think we should.

Q. Should there be a standard? A. There should be a standard as to location of light, and the amount of light.

Q. That could be easily determined upon by statute? A. Yes.

Q. That is one of the things you recommended there should be remedial legislation about? A. Yes.

Commissioner DREIER: Have you investigated thoroughly simply the occupations where people sit — for instance, you spoke of the children counting buttons.

The WITNESS: Yes.

Commissioner DREIER: Of course, they sit bent over, just as much as women who sew sit bent over?

The WITNESS: Yes, sir.

Commissioner DREIER: Can you give us any idea how that affects the people?

The WITNESS: Any sedentary occupation is going to make people lose their vitality, and they won't be as strong as an individual who can do certain work that will use his muscles.

Commissioner DREIER: Can you recommend any way out of that?

The WITNESS: No; there is no way. That is up to the workers themselves. The only way is to let them get up and exercise once

in a while. As an idealist I have a great many things I would like to remedy. When you take practical inspection work you have to curb that somewhat.

Commissioner DREIER: You limit it very distinctly, of course.

The WITNESS: Well, we may recommend certain things. We have to consider how those recommendations can be carried out or enforced.

Commissioner DREIER: Have you investigated the telephone operators at all?

The WITNESS: No. I did not know what authority under the law as medical inspector of factories I have, unless it is especially referred to me by the Commissioner.

Q. The present legislature has given the Department authority to engage a mechanical engineer? A. I believe so.

Q. Would that in your judgment help you? A. Yes, sir.

Q. What salary do you receive? A. Twenty-four hundred dollars a year; he gets thirty-five hundred dollars.

Q. And you cannot practice your profession? A. I have not practiced my profession since I have been in the Department, four years.

Q. I suppose you would not object to recommending remedial legislation to raise your salary? A. Well, I never made any attempt.

Q. Where did you graduate from? A. Baltimore Medical College.

Q. Any other institution of learning? A. I was on the staff of Bellevue Hospital, and also on the staff of the Hospital Department of the city. I was born in this city.

Q. How long have you been practicing? A. I graduated in 1899.

Q. Your testimony will be written out, and I would like to send it to you, and have you examine it, and make any suggestions to me as to any further examination, or other topics about which you would like to enlighten the Commission, especially as

to any recommendation for remedial legislation. Will you do that for us?

By Commissioner PHILLIPS:

Q. In what way is the sugar injured if they do not have the excessive heat? A. I believe it is in the refining process, Commissioner; I have not studied that industry at all.

Q. What I was trying to find out was whether this heat is done for the purpose of making it appear bright, or whether it is really an essential element? A. I think it goes to the essential elements.

Q. Of course there is danger in handling mercury, isn't there? A. Yes, sir; I just finished up an investigation of the felt hat industry, taken up in connection with mercury poisoning. They used nitrate of mercury. There is danger there. But in the other parts of the industry I found more danger from salicylic acid. I have not been able to find mercury in the other industries.

Q. Thermometers? A. Yes.

Q. Is there much danger in using lacquers? A. The danger in lacquer is the wood alcohol. All these industries have to be taken under various poisons; the anilines and the wood alcohol.

Q. The lacquer has a strong odor — A. That is methyl alcohol, and is very dangerous.

Q. When girls do that work about eight hours a day or eight and a half, is that injurious to them? A. It is; it dilates the capillaries. It is bad for people who have angina pectoris. It is likely to cause cardiac conditions.

Q. We generally noticed where the odors are strong we commence to cough. A. In Schenectady?

Q. In Schenectady. A. Yes. I took that up.

MAURICE BARSHELL, called as a witness, and being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. You are an inspector employed by the Labor Department? A. Yes.

Q. And how long have you been there? A. In the sixth year.

Q. Where did you come from? A. I am in New York.

Q. You have been inspecting factory buildings for the last six years? A. Not quite; almost. It is five years on the 4th of July.

Q. Do all inspecting in New York? A. Yes.

Q. All the time? A. Brooklyn and New York.

Q. What district are you assigned to now? A. I have no special district at the present time.

Q. When were you last assigned to a district? A. Well, just about a couple of weeks ago I was inspecting in the Bronx.

Q. Who took you off inspecting a particular district? A. I completed it, and reported to the Department.

Q. And you have nothing to do? A. I am doing special work.

Q. What do you mean, special work? A. Investigation of orders that have been issued, to see whether they are complied with.

Q. You go around and see whether orders have been complied with? A. Yes, sir.

Q. And get a certain number each day and go and see them? A. Yes.

Q. Did you inspect these premises on Mangin Street? A. My records indicate that I have inspected them.

Q. Don't you remember it? A. Well, to my recollection, yes.

Q. When did you inspect them? A. According to the date here it is October — on several days. I inspected this building on several days; not all on the same day.

Q. What day did you inspect the candy factory? A. My record does not show any inspection of any candy factory. There probably was not any there at the time I was in the building.

Q. When was that, October of this year? A. No, sir; last year.

Q. Did you inspect the human hair factory? A. Yes; there was a hair company there at that time.

Q. To go back a moment, did you inspect the eighth floor of that building? A. Yes, sir.

Q. What was there? A. A part of the eighth floor was occupied by the National Hair Company, and another part of the eighth floor was occupied by another firm, Roth & Greenberg. They manufactured child's coats.

Q. Take the human hair factory, what did you find on your investigation there a year ago? A. Natural hair.

Q. Well, it is human hair? A. Yes.

Q. What did you find there a year ago? A. Well, I found certain violations which I reported in regular course of my duties.

Q. What violations did you find? A. I found there was no register of children kept as required by law; and that the children were working in excess of eight hours a day, which is a violation of law, and also they were working after five P. M.

Q. How many children were there there? A. My record indicates one boy under sixteen and two girls under sixteen.

Q. How many over sixteen—how many children under twenty-one? A. There were two minors—that is boys between sixteen and eighteen, and girls there, and altogether a force of fifty-three.

Q. What other violations were there? A. There were no seats for the toilets on the fifth floor.

Q. What else did you find? A. I found that there were articles which were obstructing or in the way of the dressing room which was provided for the women, so that they could not properly use it.

Q. What else? A. And also issued orders which provided for cuspidors.

Q. How about cleanliness? A. Well, my record indicates that it was in a fairly clean condition at that time.

Q. How about the toilets being clean? A. Fairly clean at that time.

Q. Now, you simply reported all these violations to your office, and that is all you know about it? A. Yes, sir.

Q. Whether they were ever complied with, you cannot tell? A. No.

Q. Did you see the proprietor? A. I saw the proprietor, Mr. Goldberg, according to my records.

Q. Did you tell him of this? A. Yes, sir.

Q. What did he say? A. I do not recollect.

**MINUTES OF THE HEARING OF THE NEW YORK
STATE FACTORY INVESTIGATING COMMIS-
SION, HELD IN THE CITY HALL
AT 10.30 A. M.**

NEW YORK, November 14, 1911.

Present — HON. ROBERT WAGNER, *Chairman*,
HON. CHARLES H. HAMILTON,
HON. A. E. SMITH,
HON. C. W. PHILLIPS,
MISS MARY E. DREIER,
Commission.

Appearances.

ABRAHAM ELKUS, Esq., *Counsel to Commission.*

BERNARD L. SHIENTAG, *of Counsel.*

Mr. ELKUS: Mr. Chairman, we are ready to proceed.

The CHAIRMAN: The Commission will come to order.

Mr. ELKUS: I understand, Mr. Chairman, that we will have a full attendance during the day, but as we have many witnesses here, may we proceed now?

The CHAIRMAN: Yes.

I would just like to make a short statement before we proceed.

I regret very much that, owing to illness, I was unable to participate actively in the work of the Commission. I have followed the work of the Commission very closely, however, and have carefully studied the minutes of the examinations conducted by Mr. Elkus. I am gratified with the progress that the Commission has

already made. In the comparatively short time that it has been in session it has completely justified its existence. It has disclosed conditions in factories and manufacturing establishments that call for immediate action. The testimony given before the Commission has resulted in a series of regular and thorough inspections by the different city and state departments responsible for the enforcement of the existing laws. Prosecutions for violations of the law have been instituted and in many cases have brought about results. The Commission hopes that as a result of its deliberations such remedial legislation will be enacted as will result in a thorough and systematic inspection of factories and manufacturing establishments at all times and not merely when public sentiment is aroused by some terrible catastrophe or by a disclosure of dangerous conditions.

The Commission will now proceed.

Mr. ELKUS: Mr. Chairman, I am very glad that you are going to be with us, and I am very glad to know that you have taken so much interest in the work.

Miss Perkins, will you take the stand?

FRANCES PERKINS, called as a witness and being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. What society are you connected with? A. The Consumers' League of the City of New York.

Q. What is your position with that society? A. I am secretary of the Consumers' League.

Q. Will you briefly explain what the Consumers' League is? A. The Consumers' League is an organization of persons who wish to improve the industrial conditions by utilizing the shopping power, the buying power of the consumers, who are banded together, that is, by pledging themselves in their shopping to do their buying in such a way as to improve conditions, rather than to make them worse.

Q. In other words, your society is composed of ladies and gentlemen who buy merchandise? A. Exactly.

Q. From retail stores and others? A. Yes.

Q. And you use the power which they have in being customers, to compel these stores to improve the condition of working people? A. Exactly.

Q. How long have you been executive secretary? A. For a year and two months.

Q. Now, have you made any inspection of the bakeries in the City of New York recently? A. I made an investigation of the bakeries in the City of New York in the months of October, November and December, 1910.

Q. Have you made any since then? A. Since then not any large number have been visited by me personally, but investigators from my office, who made reports to me, have also made investigations during the months of January and February of this year, and so recently as yesterday and Saturday and Friday, investigators from my place went through some bakeries in order that I might know the material which I present to you to-day to be new and fresh.

Q. Did you do it at the request of the Commission? A. I did that because I was to testify to-day, yes.

Q. Will you tell the Commission how many bakeries you personally investigated? A. I personally have visited about a hundred bakeries in the City of New York, scattered widely all over the city, not in any one district.

Q. How many were investigated by those under your orders? A. About as many more.

Q. How many have been inspected during the last few days? A. I think in the last few days there have been ten bakeries visited, also in different parts of the city, choosing from various districts where we know the bad conditions had existed.

Q. How many of these bakeries that have been inspected are in cellars in buildings; that is, places below the level of the street? A. All the bakeries which I have visited, with the exception of perhaps ten, have been bakeries carried on below the level of the street.

Q. That is, cellar bakeries? A. Cellar bakeries.

Q. What about the light in those bakeries? A. The light is almost invariably bad. I think that I can say truthfully that

I have never visited a bakery below the level of the street where the light was adequate.

Q. Now, I think I will ask you to state first what you found in your own personal investigation; then you will come to your inspectors' reports made last January and February, and then after that, what they have reported to you during the past few days verifying the former work, as I understand it? A. You mean the general condition in cellar bakeries?

Q. Yes. A. We have found for the most part that the mere fact that a bakery was in a cellar would make the conditions bad, that is, there would not be adequate light, there would not be adequate ventilation, and so soon as light and ventilation were found to be bad, we found coming up from that a whole series of unsanitary conditions which were more or less dependent on bad air, and the bad light.

Q. Tell us what those unsanitary conditions were. A. In the first place, it follows as a matter of course that if a bakery is under the level of the ground, it has not adequate air and windows and an adequate system of ventilation. Whenever the bakery is swept, the sweepings in such a cellar bakery thrown off the floor, settle back on the walls, utensils and furniture, and the bakery is never really clean. Although they make a pretense of sweeping it, to sweep out the dirt and debris, they simply cause the dirt to rise and settle on the walls and utensils in the bakery.

The light and ventilation are also inadequate. You will find that even where the law is actually complied with, there is always a window opening, but in many of the bakeries in which I have gone I have not been able to discover the opening until I asked the proprietor to tell me where it was. They comply with the law in that respect, but the opening is so small and insignificant that it is really and practically of no use whatsoever. In many of the bakeries that I have visited, the window is so placed that the surrounding ground is almost half-way up to the window, and there are not more than four inches of air, not more than four inches inside air space where the air could possibly come in, and in such a case the window is so placed that it will hardly close or open, and when they are open of course dust and dirt blow in from the street.

Of course the windows are down deep, down a flight of steps from the street, a flight so steep and the bakeries are so low that one has to stoop almost double to get into them at all, and of course street dirt and dust blow through that opening, if it should happen to be open, but the tendency is to close that up in the winter time.

Q. You have spoken about the sweepings in these bakeries, and about there not being sufficient light or ventilation. What is the effect upon the bread making of this dirt? A. I think it is very obvious that if the sweepings settle back on the flour, and on the mixture, and on the walls around the bakery, where it has no opportunity of escaping from the inner room, the sweepings simply are permitted to settle back on the bread mixture and on the utensils which are used for holding the bread.

Q. Can you give any exact cases—you need not give any names—cases of bakeries which you examined where you found these conditions to exist? A. Surely. There are many bakeries, there are two or three bakeries which I know of on Oak Street which exemplify that very well.

Q. Give the numbers. A. I can only give you one of the numbers, as I have forgotten the others, but I remember one at 41 Oak Street.

Q. 41 Oak Street? A. Yes; but I have, of course, those records in my office, and if necessary, I will submit them to you.

Q. Will you describe No. 41 Oak Street to the Commission? A. That bakery is a room which is below the level of the street, the ceiling is higher than in some bakeries which I have visited, it is fully eight feet high.

The window in that place is a small window, perhaps a foot and a half square, and is in the upper part of the side wall. The air which comes in that window has to come from the street, or rather, a side alley off the street; the window is usually closed, but I suppose in the summer it is sometimes open. The place is lighted by gas, which is burning all the time when the people are at work there. The floor is partly cement, partly wood, and is broken in many places, and badly in need of repair the last time I visited it. The ovens are in the rear, and the bread board and moulding troughs are along the side. The place is swept fre-

quently, and the floor kept clean in that particular place, due to the desire of the owner to have his place kept clean, but the dust is swept under the bread board and spaces on the side.

Q. On the bread, if the bread is there? A. Of course, if the bread is there. The bread is usually taken into the back part, near the oven. The bread is usually packed in all these bakeries up opposite the oven, after it is taken out before it is delivered. The drain pipes, or rather the water pipes which supply the main part of the building, go across the top of the ceiling in this bakery, as in nearly all the bakeries, and sometimes they are wrapped in burlaps or something of that kind, and they frequently drip through, they soak through. I have seen them soaking down into the bread mixture and flour, which are in very close proximity.

The flour is stored in a little room under the sidewalk; a little wooden floored room under the sidewalk, and stored along the floor in sacks.

Rats are common throughout the old bakeries, and for that reason cats are kept. In this particular bakery I think I saw three cats, and may I say that these cats are among the least pleasant things in the different conditions I found down there. They have free access to every part of the bakery. I have seen cats jump over the dough mixture, and walking freely on the tray where the bread was being mixed, and indeed walking around through the flour,—not in this particular bakery, but in another bakery I once saw kittens born on the bread tray. The cats have free access to all parts of the bakery. They are street cats.

Q. They are not clean? A. They are very unclean.

Q. You mean these cats are allowed to go in the bread mixture, and that sort of thing? A. Oh, no; don't understand me to say that. They walked around freely through all parts of the bakery. I have seen them crawl into the dough mixture, but of course they were shooed out at once, the same as you would do in your own kitchen. There was no control over them as to where they could go. They could go freely where they wanted.

Q. In this No. 41 Oak street, taking it as a concrete example, how was the ventilation when you were there? A. The only ventilation that is possible is through these windows, which are kept closed up; I mean this window.

Q. Really no ventilation? A. Really no ventilation.

Q. Was that in the last few days; did you examine it in the last few days? A. No, sir; the last day I have, I think, is January. But at that time there was, on that day at least, there was a dirty earth closet which was used.

Q. Now, tell us generally what you found in these ninety cellar bakeries about the toilet? A. In general there was no toilet in connection with the rooms. They were apart from the bakery rooms, and complied with the law. The Tenement House Department has seen to that in the last four or five years.

Q. Tell us how they were as to cleanliness? A. In almost every case they were absolutely dirty. Some were so nasty as to be indescribable, and others had only dirt which seems to be incidental to being in cellars, and impossible of keeping clean, because they were situated in a place where dirt was bound to accumulate.

Q. All were in such a condition that they needed cleaning; is that a fair statement? A. I think that that is a fair statement. They needed cleaning, but the question always was as to whether cleaning would have done any good in many cases. In some cases it would not have done any good; there would have been no great improvement because of the condition in which they were situated; that is, being in a cellar. I have visited several bakeries where I believe the proprietors kept them as clean as they could keep them. They complied with the law, and had rather high personal standards of cleanliness, and tried to keep up to them. But the fact that they are in a cellar, that the utensils and furniture are absolutely stationary, the ceiling being so low, and the fact that the different things could not be moved, made it impossible to keep the place clean. The dough caked on both the bread trays and the bread mixer. Then there was the cellar, the dampness, also the fire; and the dirt flung in a corner; it all made it impossible to keep them really clean.

Q. What did you find with reference to the cleanliness of the utensils? A. Varied greatly. Some proprietors have a high standard of cleanliness and others none whatever. Of course, to an ordinary investigator, bakery utensils look dirty because they don't wash them. They clean them with grease, and that I understand is entirely allowable. It makes the pan better, and it can, of course, be made quite as clean as by washing.

The furniture of the bakery — that is, the buckets in which they hold the bread and cake, and the steam closets, where they store them, were almost invariably dirty

Q. Now, you told us about the storage of the flour. How about the other food ingredients, where are they kept? A. In the bakeries where they make cakes and pies there are, of course, a great many more kinds of raw material kept on hand, such as fillings and icings, and lard and butter, and mixtures and all that sort of thing, and the general experience in these cellar bakeries is to mould these in buckets or tubs, which I have almost invariably found that they kept around on the floor. Frequently, where these buckets are kept, there is not much room, in the small cellars, and with a fairly large force of men baking, it is almost necessary to have these things where people can get at them. They set it on the floor or they stick it on a shelf in a corner somewhere, and I have frequently seen them sitting in these little rooms under the sidewalk, where the leakage from the street between those rather poorly made glass coverings often dripped into the buckets. I have seen street drippings right into a bucket of cranberry paste, which was a filling paste. I have seen icings which were to be put on cakes and other mixtures placed where these water drippings were dropping into them. I have seen them placed right by the door where the dust from the street was coming in on them. I have seen the white icing so black with street dust that I thought it was chocolate icing. I have seen icings and fillings under dirty tables and in closets and kept in a condition which I think I can describe by no other word than filthy. That has been my ordinary experience with raw materials in the cellar bakeries.

Q. That is, they were kept in such a condition that they were bound to get dirty? A. Bound to get dirty—impossible to be anything else, and the conditions of the bakeries were such—crowded, small, dark, ill-ventilated—that it was almost impossible to find any other cleaner place in these places. I should think, however, that it would be impossible to arrange those bakeries so that the materials could be kept clean.

Q. Now, how about the clothing of the men who work in these bakeries; are they furnished with clothing, or are they to supply their own clothing? A. They supply their own clothing, and

most of them having a sense of personal cleanliness don't wish to wear the clothing they wear for use in the bakery when they go on the street, so they change their clothes when cooking in the bakery, and their clothing which they take off is hung on pegs along the wall. There are only a few bakeries where lockers, or clothes closets are kept, or provided for the bakers to hang their clothes in, and if they have occasion to change their clothes it makes it necessary for them to change their clothes in the bakery. There are a few bakeries, and I think those are bakeries usually where the Bakers' Union has signed up an agreement with the owners for certain comforts for the bakers, where they provide a place for the bakers to change their clothes, and a place to hang their clothes. In the places where these are not provided, they invariably hang them along the walls.

Q. What kind of clothes do they wear? A. It depends upon the personal cleanliness of the baker and the proprietor. Some men would naturally make for cleanliness, and want clean clothes, but I have seen men wearing woolen shirts, and the woolen shirts have been covered with flour and water and icings, and wearing clothes which are generally dirty — dirty caps on their heads. And, on the other hand, I have seen men in similar bakeries wearing clean, thin, white shirts and washable overalls. It depends largely, I say, on the personal standard of the proprietor and the individual baker. May I say one other thing about this changing of clothes?

Mr. ELKUS: Surely.

The WITNESS: In these bakeries there are no rooms provided for the bakers to change their clothes, and in those where they are not provided, the bakers are obliged to change their clothes in the bakery room themselves, and in so doing they lay their clothing on the bread boards.

By the CHAIRMAN:

Q. Is that the place where the bread is being baked? A. No, where the moulding boards are, the boards where the bread is mixed and moulded, where they do the work.

By Mr. ELKUS:

Q. What are the personal habits of these people as to cleanliness or uncleanness? A. Why, there is a very large difference as to cleanliness, depending upon the men's personal standards. I have seen dirty, very dirty habits in men working at the bread, and on the other hand, I have seen men with a very high standard of personal cleanliness.

Q. Well, now, can you tell the Commission — specify some of their personal habits? Can you give them some illustration? A. Well, I have seen the chewing of tobacco by the men working in the bakeries, and I have seen some with very cleanly habits, and I have seen many with uncleanly habits.

Q. Expecting, I suppose? A. Naturally. A man who bears every evidence of not having bathed frequently, I have seen working at the bread, and I have observed other habits of personal uncleanness, and I have seen men working in these bakeries, where the room is badly ventilated with the water actually running down their arms while they were kneading the bread.

Q. Do they wear much clothes in the summer? A. No, not in the summer because it is almost necessary in order to stand the heat that they wear few clothes, because it is badly ventilated with regard to the room, in these rooms the heat is intense. Even in the winter time the heat is very intense at times, very suffocating.

Q. Now, in the summer time when the perspiration pours off these men, does it get into the bread material? A. Why, of course, they knead with their hands.

Q. And I suppose, of course, most of them are not very cleanly? A. I don't want to say that; many of them are cleanly, but I say a large number are not.

Q. How about sleeping in these cellars by the employees or working people? A. There is, of course, a State law providing that no one shall sleep in the bakery, and so far as I know I have not found a bakery where there was a regular room. I do not recollect having seen a bakery where there was a regular room there in which the men could sleep, but I may say there are a great many bakeries where they sleep at some portion of the day, and I have, in a large number of bakeries, gone in unexpectedly at the time when the bread was rising, and found men

sleeping on the floor and even men sleeping on the bread press, on the benches, and yesterday in one bakery one of my investigators found a woman lying on blankets and quilts on the floor, who was very ill. It was impossible to discover what she had, but the general appearance indicated tuberculosis.

Q. What bakery was that? A. I can give you the address of the bakery if you wish. It is 145 Cherry Street.

Q. Now, yesterday your investigator found a woman asleep or lying on blankets or under quilts, apparently? A. On the floor of the bakery.

Q. She was ill? A. Very ill.

Q. Was she the wife of the proprietor? A. She was the wife of the proprietor, and crying for water, while he did his work. The family spoke Italian, and it was hardly possible to find out what disease she had. In another bakery yesterday also there was another boy present, a member of the family, who had recently had an operation, and he was sitting propped up on pillows, and evidently an invalid and being taken care of, and he also had a very bad cough.

Q. Where was that? A. That was at 48 Oak Street.

Q. That was yesterday? A. That was yesterday.

Q. Now, Miss Perkins, to go back, you say you have observed cots and bedding. Have you got a list of those places where you observed that? A. I usually make a list. I have the record of all of them.

Q. Well, you may send it to the Commission, if you will, please? A. I will. I now may say that in the cellar bakeries, the system of bakers sleeping on boards in the bakery is not an uncommon thing, because you must understand that these men work very long hours, and they work under these very hot conditions which make them feel that they want to drop down and take a nap, and they often do so by lying down on the bread press, or in the rooms where the bread is rising.

Q. They sleep on the bread press? A. They sleep on the bread press and they sleep on the floor and on the flour bags. I have seen them sleeping on the flour bags.

Q. Have you found people who were diseased employed in these bakeries? A. I am not able to detect a diseased condition by a mere glance.

Q. How about using tobacco and cigarettes? You have told us about chewing tobacco. How about smoking? A. I have seen bakers chewing tobacco, and in some cases I have seen the baker smoking; I have not seen bakers smoking cigarettes, but in many bakeries I have seen cigarette boxes, and ashes on the floor, indicating that they had been smoking in there before I entered.

Q. Now, Miss Perkins, you have told us about the bakeries that you have personally investigated. I would like to come down to those that were inspected for you in the last few days, and tell us what were inspected and what was the condition of the working room, and what they were, and what you found — or, perhaps, you would like to say something more about the inspection you yourself made? A. No, I think not. I think I have indicated to you the points I wish particularly to make, first, that the unclean conditions which I have found in bakeries, and which my investigators have reported to me in cellar bakeries, seem to me almost always dependent upon the fact that the bakery was in a cellar, and that where we have found a clean bakery, it has been clean only because of the strenuous efforts of the proprietor, and the employees, and even with their strenuous efforts they could not bring it up to a standard which was a desirable standard for the breadmaking industry of the City of New York, and that so long as the bakeries are situated in real cellars, there will be conditions over which we have no real sanitary control.

Q. Well, then, what is your opinion as to whether baking should be allowed in cellars at all? A. I feel there should be some system by which we take bake shops out of those places which can be called truly cellars. If you remember the report of the Commissioner of Accounts last year, he recommended in that report that no bakery should be allowed in a cellar four feet six inches below the level of the street, and that it is very desirable that we should not allow bakeries to be maintained in cellars. Possibly you know also Chicago's experience, where they have moved bakeries out of the cellars, and they do not allow them to exist in these conditions any longer, and they have cleaned up the city bakeries in the city of Chicago, and their bakeries are infinitely superior to those of New York.

By the CHAIRMAN:

Q. Where are they generally situated in the city of Chicago?

A. All over the city.

Q. I mean what part of the building? A. Sometimes on the ground floor, or frequently, situated in places similar to those covered by our regulations here — four feet six inches below the level of the ground — that is the rooms similar to our new law tenement basements, where there is a very large portion of the room above the level of the surrounding ground, and yet where the room is truly a basement — that it is also part of the building, but it is surrounded by a wide court way.

Q. I see, and the ventilation is given by a broad window leading into the court? A. Yes, into a wide — say twelve foot court — not narrow air shafts. Such a regulation would allow bakeries in basements of new law tenements which are well adapted for the ovens and where there is adequate ventilation and light.

By Mr. ELKUS:

Q. Now, will you come down to those cases which were examined in the last few days and what conditions were found there?

A. Well, I say that the conditions found in the investigation made in the last few days simply served to check up our previous investigation.

Q. That is what I understand. A. No bakery was originally inspected in the last few days. We simply sent an investigator to some bakeries which some of my people had visited before, and I asked her to report the conditions she found in relation to their former condition, and in every case she reported that the condition was apparently the same, although she did say there had been a great deal of whitewashing done recently, and I think it was undoubtedly due to the recent agitation about cleaning up the bakeries. In my opinion, whitewashing means very little. I have visited quite a few bakeries in the last week or ten days that have been whitewashed recently, with my inspector, and we have found sometimes smoke where the gas jets are going all the time, and where street dust has stuck to the walls, where

there is a considerable dampness, that the new whitewash got very black in a very few days, and sometimes it gives the place an appearance of being dirtier from the point of view of clean bread than an unwhitewashed bakery. It makes the room look better temporarily, it looks white for a few days, but it gets black, and it soon looks as bad or worse than it did before.

Q. Now, Miss Perkins, do you want to give us any cases that have been examined in the last few days, and tell the conditions?

A. As I said, those investigations simply check up and show that the essential conditions are exactly as they were a year ago. I think there has been some whitewashing. If you wish me to read one of those schedules, I shall be glad to do so.

Q. Suppose you read one, giving the name and address of the place you examined. A. It is 48 Oak Street, nationality of the proprietor Italian; the shop is in the cellar; three windows, all closed; they open on the street; there are four gas jets and one door. The floors are made of concrete and were very dirty. The walls were whitewashed, and the grade for cleanliness is bad. The toilet in this place was upstairs. The clothing of the bakers was hung along the walls of the shop. The condition of the wash sink was very bad. There is usually a wash sink in these bakeries, and that is usually in a dark corner, and one water faucet drawing cold water only. Everything gets thrown into it, and I have seen wash sinks filled up with all kinds of refuse, and also the space under the wash sink is very bad and dirty, as a rule. Whatever utensils are washed are washed in that sink.

Q. What are the odors of these bakeries that you yourself observed? A. Well, in the particular bakeries I found no particular odor except that of steam and excessive heat, and flour. In the cake and pastry bakeries you find exceedingly disgusting odors, the odor of bad lard, and dirty lard, and all those things. Frequently very poor quality of pie fillers, and icings, and all that sort of thing, combined with heat and a greasy atmosphere, and sometimes tobacco smoke, and no ventilation, makes the odor very bad indeed, so the chief odors we got in all these particular bakeries underground is one of excessive heat and suffocation. The odor is not particularly distinguishable.

Q. Now, will you go on with that case? A. The materials, the flour and so forth, were stored on the floor in the shop. There was no light, and practically no air. The clothing worn by the employees,— and there were three employees in this case,— was very dirty. That is the condition that I discovered — where woolen shirts and trousers were worn and no aprons. There are bakeries in the city where the aprons are kept clean and changed every day or every day or two. In this bakery they were not. The family seemed to live in the shop, although they said they had three rooms upstairs. The floor was very dirty; three cats and one dog were kept here; the household utensils were all around; family cooking was going on. There were evidences that they slept on the flour sacks during the day. Two babies in the shop. On the second inspection again we found the whole family in the cellar as on the previous inspection. This was a year later. The whole family seemed to live there, and also do the cooking there. Also there was a boy who had undergone an operation recently, being cared for there, and he coughed continually. The details given above are confirmed in my inspector's report of yesterday.

Q. That is just one taken at random, is it? A. Just one taken at random.

By the CHAIRMAN:

Q. When you say shop, Miss Perkins, you mean the place where they do the baking, not the place where they sell? A. Oh, no, they don't sell it, or, rather, they sell it by sending it out. There is no store; they sometimes have a store upstairs, and sometimes they don't; sometimes they simply send out men in the neighborhood, or sell to the local grocery stores, and all that sort of thing. There are no salesrooms in any of these places.

By Mr. ELKUS:

Q. This was a bakeshop. You mean the place where the bread is baking, when you speak of shop? A. The place where the bread is made and baked, not where it is sold. I have no knowledge of the selling conditions.

Q. That is all I want to be clear about. A. This is where it is baked and mixed — made and baked.

By Mr. ELKUS:

Q. This is where they do the baking and cooking? A. Yes.

Q. Now, did they inhabit this bakery? A. They said they had their rooms upstairs, but there were couches all around, and, as I said, they evidently had taken naps on the flour bags.

Q. Oh, there were couches and beds around this room? A. Yes.

Q. Can you give more of the inspections that have been made either by you or those under you, and give the conditions that have been considered? A. I think I have covered the most essential points.

Q. Now, under the law to-day, who do you understand has jurisdiction over these bakeries? A. I understand that there are two departments having jurisdiction over these bakeries — the Department of Health of the city of New York has certain jurisdiction over these bakeries, because of the fact that they are charged with the general sanitary conditions of the city — and this is a condition which most assuredly affects the health of the city; the Department of Labor, under the laws, has also some jurisdiction over the bakeries of the whole state, and that includes the bakeries of the city of New York, of course. There is therefore a divided responsibility.

Q. Yes, there is a divided responsibility? A. Which I have found in so many cases, and which I think is regrettable in this instance.

Q. Now, has the Tenement House Department any authority over it? A. The Tenement House Department has authority over them only in a few particulars. So far as the regulations in regard to fire proofing are concerned, the Tenement House Department has authority to have fireproof ceilings put in, and to take out direct stairway connections between basement bakeries and the rest of the house. That of course has been done to protect the tenants of the house from fire, which may originate in the cellar, and which does so often originate in the cellar, and they also have some authority in regard to the toilets there in these basements, and in those respects they do their work, but they have not attempted to do anything else in regard to the bakeries; it is not their business.

Q. In other words, there are three departments in the state and the city who have some authority or jurisdiction over these bakeries? A. Yes.

Q. And is each one supposed to make inspections? A. Yes.

Q. Do you know whether they are made or not? A. I know the Tenement House Department makes its inspections in the course of its regular work. The Labor Department makes some inspections every year.

Q. You mean inspect some bakeries every year? A. Inspect some bakeries every year — by no means inspecting all the bakeries of the city of New York, and admitting also in their annual reports that it has been impossible for them to do so. The Department of Health makes, I suppose, an irregular inspection, and does inspect, or claim that they inspect on complaint. For instance, if they receive a complaint that a bakery is unsanitary, they claim that they inspect it.

Q. Now, Miss Perkins, you have given this subject considerable study, have you not? A. Yes.

Q. And you have had a great deal of experience in matters of this kind. What do you suggest to the Commission should be done to improve these conditions? A. You mean in regard to the authority for changed conditions?

Q. Yes, for inspection? A. It seems to me that the responsibility for such conditions in the bakeries of the city of New York belongs primarily with the Department of Health of the city of New York. It is plainly a sanitary condition affecting the health and comfort of the citizens of New York city.

Q. Let me interrupt you a moment? A. Yes.

Q. Isn't there plenty of authority in the Board of Health and the Health Department to compel these bakeries to be clean and the employees to be clean, and to practically do away with every evil of which you have spoken? A. There is, I think, plenty of authority already resting in the Board of Health to do that work, if they wish to do it. I have also been told within the last year, by three members of the Board of Health that they believed they had plenty of authority to do this piece of work. They told me this when I asked that the Board of Health should amend its own sanitary code in such a way as to provide for

the regulation of bakeries, and I was told by three different members of the Board of Health that the Board of Health had ample authority to do that work, if it were equipped to do it. I believe that is true, only I think it would be an immense advantage to amend the sanitary code so that the specific sanitary requirements should be set forth in that code.

Q. In other words, a standard ought to be specified? A. Specified.

Q. So that the baker may know what he has to comply with? A. Exactly, but there is probably plenty of authority vested in the Board of Health to do this work satisfactorily.

Q. Now, go ahead, Miss Perkins, pardon my interrupting you. A. As I said, I think the Labor Law of the State of New York cannot be written for the local conditions in New York city. The particular conditions in the bakeries here in New York city are different from the conditions in the bakeries of any other city because of the peculiar situation in Manhattan, because of the congestion of population for one thing, and because of our way of meeting that congestion of population by building tenement houses, and by building them very close together, and not leaving adequate space around them — a problem, which, of course, we meet on every hand; and also because there are probably more bakeries in proportion to the population of the city of New York than any other city, due, of course, to the fact of the tenement houses having kitchens so small that more and more of the population are depending upon the commercial bakery for their bread and cake and pastry, and all that sort of thing. There are probably more bakeries in proportion to the population in the congested quarters of New York city, and bakeries in a worse condition from the point of view of ventilation and sanitary conditions than any other place in the state.

By Commissioner PHILLIPS:

Q. Do you mean tenement house bakeries ought to be forbidden by law? A. No, I don't mean from the point of view of the tenement house. It might be desirable to do so; I have no knowledge on that point. I do say, though, that I think the bakeries in cellars — that is true cellars, which are below the

level of the ground — should be forbidden in the city of New York at least.

Q. Well, should they be provided with a place where the family could live? A. By no means; they should never live in the rooms.

By the CHAIRMAN:

Q. It would be impossible, would it not, for the Board of Health to correct that evil as to the location of the bakery? A. Oh, no, I think they could, the Board of Health, by amending its sanitary code and specifically stating that no bakeries should be maintained in rooms below the level of the street. The recommendation which was made in Commissioner Fosdick's report, and which I agreed to at the time, was that the Board of Health should demand a license from all bakeries, and should license the premises of that bakery, and that no license should be issued for the establishment of bakeries in rooms which were more than four feet six inches below the level of the street.

By Mr. ELKUS:

Q. That is the same suggestion that we have had made to us about all manufacturing establishments. A. Oh, there should be some sort of permission to do this business obtained before they moved in, because otherwise nobody knows what they do. It may be a year before they are inspected to find out whether they comply with any law. May I say here that I have even in the course of my inspection, found bakeries that have not been known to the health authorities or to the Labor Department.

Q. You mean there is no way of finding out by any authority where a bakery is conducted unless they happen to stumble across it, or find it in the ordinary rounds? A. Exactly.

Q. It is true, of course, of every manufacturing establishment in this case, with very rare exceptions. And do you believe — I might ask you the whole question — do you believe that there should be some method by which every factory or manufacturing establishment and bake shop ought to be located? A. I do. I believe they should all be registered in some system or other, in which they should be divided, and I feel that this system of licensing bakeries would get at the situation there perhaps better

than anything else — licensed under local authority. I believe, however, that the bakeries of New York city present a local problem, and that while the Health Department has ample authority at present to supervise them, if it wishes to do so, and to establish a very high sanitary standard, and to insist upon the maintenance of that high sanitary standard,—that since they have notably failed to do so, as the conditions of the bakeries to-day prove, I should like to see a possible clause in the State law, an amendment which covers cities of the first class, and which places full responsibility for these local conditions on the local Board of Health.

Q. Miss Perkins, do you believe and do you recommend that one department should have the exclusive inspection of bakeries and control of it? A. I do.

Q. It has been suggested here, because we have found in these investigations that one of the troubles with reference to all manufacturing establishments has been that there are a multitude of authorities who are charged with something with reference to each one of these factories. For instance, the Fire Department has some authority, the Building Department has some authority, the Tenement House Department has some, and the Department of Labor, and each one makes inspections, and each inspection has to have for its basis certain facts which they all have to have uniformly, and each one gets individual facts. Now, would you be in favor of having some independent bureau, either as the branch of some State Department or city department, which was charged with the authority of inspecting not only bakeshops, but all factories and manufactories, and ascertaining all the facts with reference to them, and then this department sending to the department charged with the enforcement of the law as to the particular factory or bakery, these facts, and pointing out where there was some dereliction? A. I think that such a plan has many useful elements in it. The question that arises in my mind is, will departments, independent departments, act on recommendations of inspectors other than those under their own control.

Q. It would not be a question of their acting; they would have to do it by law if this plan were to be carried out. I understand now there is this feeling, that if the Fire Department finds a violation of

law which the Labor Department ought to locate, the Labor Department takes the information, and sends their own inspector to see if the Fire Department inspector has told the truth. Now, of course, that could not go on. But the theory on which this plan is proposed, is that the inspectors of this Bureau of Inspection, which we might call it, to give it a name, would be really the inspectors of all the departments; they would not have any other inspectors; except to see that the work which had been ordered done was done. Now, with that amendment to the plan proposed, do you think it would be a satisfactory solution of this problem of double and triple and quadruple inspection we have now, with the same kind of division of responsibility? A. It seems to me that not all the inspections which have to be made in a city like New York could be done in that way. Then there are certain sorts of inspections which are pretty technical, and highly expert, and I doubt very much if the same man would always be a competent inspector for all these points. Now, of course, that is a point to be considered. It might be possible that they could be trained to do that, but the ordinary salaries paid to inspectors in any department, it seems to me, do not warrant asking them to be experts, and technical experts in so many lines.

The CHAIRMAN: Couldn't you divide them — even within that department?

The WITNESS: Of course.

By Mr. ELKUS:

Q. Wouldn't it be better to have a department which was organized for inspections, and get some highly competent men who had made a study of inspection at the head of it? A. I think there is a lot in that. I have felt that in some way or other the co-operating system of inspection, whereby all these departments whose work is at all related, could act through this central inspecting system might be desirable. The idea for a separate bureau, a separate department, separately maintained, is, of course, a different thing from a co-operating system of inspection. With such a system the heads of various departments would be in touch

in an advisory capacity, and the inspectors they would direct in that advisory capacity, agreeing between themselves on a scheme of inspection, and upon a system of inspectors.

Q. Well, that would require meetings and conferences and would take time in working out, and complicate that authority. A. May I ask if the scheme you have in mind, that you suggest, is a scheme whereby the inspections required — for instance, by the State Department of Labor, should be made through this same bureau? Would not there be a complication in which you would have a State Department working under orders by a city bureau?

By Mr. ELKUS:

Well, not necessarily. The State Department could supersede the bureau. It would have authority over all the cities of the State. Facts discovered by inspectors would be reported back to the departments responsible and they could go ahead with the work. There would not be any local complication about that, if that is what is in your mind. A. Yes. It is in my mind. It would also mean, would it not, that the city of New York is paying again for work which it was also paying for when it started the State Department of Labor?

Q. Well, that would be true, but the city of New York has to pay for a great many things that it does not get. But that could be arranged by a system of proportionate payments; they could assess the different departments of the State and city for the expenses of this bureau. But, after all, the expense of the matter is not as important as the benefit to be derived. I may say for the benefit of Senator Wagner and Senator Hamilton, that the inspector from the Labor Bureau when he goes to a factory, first has to get the name of the owner and the size of the property, the number of employees and the number of females, and of children under a certain age and over a certain age, the height of the ceilings, and the dimensions of the room, and the number of windows, before he gets down to the point of his visit. Information of that kind it takes a great deal of time to get. Then comes along the Fire Department inspector; he does the same thing. Then the Health Department gets the same information, and then the Tenement House Department, and the Building Department all get this identical information, and have to spend hours

and hours and days in tabulating it and writing it up. If it could be done all at once, that would be the end of it. That is one of the points. It would be a great saving of time, as it has been considered. Now, you have spoken of the employment of people who are diseased in these bakeshops. How would you prevent that? A. It seems that if the Board of Health assumed charge of these bakeries, that it could state in its own sanitary code, in its own scheme of rules which are drawn up, exactly what requirement should be made in the way of personal cleanliness, and personal health of the bakers. I may say that it is quite possible to determine the health and general condition of bakers, because that is already done by the Bakers' Union all over the country, particularly here in New York city. They have a rule inside their own organization in regard to the health of bakers, and they have physicians in their own group who report upon the conditions of the men, and men are not allowed to work if it is known to the officials of the union that they are suffering from diseases which are contagious and which might in any way affect the wholesomeness of the bread; so it is perfectly possible for the Board of Health to establish such a rule for all bakeries and to insist upon a medical inspection of bakeries.

Q. I was just coming to that; ought there be inspection as to that? A. I think so, yes.

Q. Now, Miss Perkins, you have given some study to the employment of women and children in industries, have you not? A. Yes.

Q. And have you any suggestions or statements to make to the Commission with reference to that? A. May I ask in what particular?

Q. The hours of labor, the employment of women who are pregnant, not only their employment when they are pregnant, but also just immediately after child birth? A. Within the last few months I have been giving a good deal of attention to the subject you last mentioned, the laboring by pregnant women in industrial establishments, and we have come to the conclusion finally that it is from every standpoint undesirable. We have also come to feel that it is quite undesirable to prohibit the labor of pregnant women for a period of say two or three months during pregnancy

and perhaps two or three months after, unless at the same time some provision is made for their maintenance.

Q. After confinement? A. After confinement, unless some provision is made for their maintenance. That has been the experience, I think, everywhere, that in simply taking women away from their work you make them dependent on the community in the way of asking for charity during that period, unless some adequate provision is made for them. I think, however, that from every point of view, medical and physical, it is undesirable that women should be industrially employed in the last few weeks of pregnancy, and they should certainly have, in the interests of their children, some time after confinement when they are not required to keep strict hours of work.

Q. As a matter of fact has it been your experience that women work right up to the time of their confinement? A. Those who are most in need of the work, do work up to the last moment.

Q. How about working immediately after child birth? A. That also is almost necessary. They take two or three days and get back to their work as soon as possible; that is the general custom. That means, of course, that the children must be artificially fed and there is the whole problem of feeding the young children.

Q. Miss Perkins, how about children who are employed in manufacturing establishments. Have you any suggestions or recommendations to make as to that? A. I feel most strongly that there are certain dangerous trades, certain trades where the conditions are such that the child is likely to suffer from bad ventilation, that sort of thing. They should be prohibited from working there. How far we should go in that matter is the question. We should constantly raise the age limit at which the children may be employed, doing so gradually. The age is now established at fourteen years. I do not think that should be considered as a stationary point, a point where we ought to stop. I think we should be constantly raising the age at which children may be employed, but owing to our inadequate educational facilities that will have to be done gradually. After fourteen years of age, most of the schooling which children receive cannot possibly interest them. We must have a better system of education before we can successfully keep children in school and away from work.

Mr. ELKUS: Have the Commissioners any suggestions to make or any questions?

Commissioner DREIER: I want to ask about the hours of work in bakeries; you said they worked long hours. Have you any idea how long that is? A. It means very varying hours. In some bakeries they work sixteen hours or eighteen hours a day, and I think it is against conditions of that sort that the Bakers' Union has taken a stand.

Commissioner DREIER: What is your opinion as to that?

The WITNESS: The hours vary greatly, the hours of labor, and it is not possible to make a general statement for the whole city. The hours vary greatly in every kind of work, and whether the work is done at night or in the daytime, you have to consider that sort of thing. Where they work two shifts, it is perhaps twelve hours, and if it is done in one shift, it is usually more than twelve hours.

Commissioner DREIER: Are the bakeries usually open both day and night? You speak of two shifts.

The WITNESS: Some of them, not all of them however.

Senator WAGNER: Have your inspectors covered the use of the raw materials in bakeries?

The WITNESS: No. We have no facilities for determining that sort of thing.

By Mr. ELKUS:

Q. Has there been some inspection of the products of the bakeries by some authority to see whether or not they come up to certain standards? A. You mean a certain standard of purity?

Q. Yes, the Health Department does it in certain cases? A. I think they do in some respects. I do not feel qualified to answer that question.

Mr. ELKUS: We have in attendance, if the Commissioners please, two practical bakers whom I propose to call this afternoon. I will now call Commissioner Murphy.

JOHN J. MURPHY, a witness being first duly sworn, testified as follows:

Mr. ELKUS: I may state to the Commission that there is in attendance on the Commission Dr. Graham Rogers, who is the medical expert of the Department of Labor, and by the courtesy of the Commissioner of Labor, he is in attendance and is aiding the Commission, and I have asked him to make suggestions as we go along.

Examination by Mr. ELKUS:

Q. Commissioner Murphy, you are Commissioner of the Tenement House Department of this city? A. I am.

Q. Will you tell us in a general way the jurisdiction of your Department? A. The jurisdiction of the Department extends to all buildings occupied by three or more families living independently and doing their own cooking on the premises. It relates chiefly to light and ventilation of such houses, and under the Charter we are given power to abate any nuisances or evil conditions existing on the premises which we consider detrimental to life or health.

Q. That is under the present Charter? A. That is under the present Charter

Q. I beg pardon, had you finished? A. Yes.

Q. About how many tenement houses are there under your jurisdiction? A. The number now is about 108,000.

Q. That is buildings? A. Yes. No, let me correct that, I have the accurate figures here, 103,828 on the 31st of December, 1910. My figures have been made for the year 1910. And those 103,828 houses or buildings contain 866,094 apartments.

Q. 866,000 apartments? A. Yes.

Q. And what is the average of a family to an apartment, how many people? A. We estimate that about three and three-quarter millions of the population live in apartment houses.

Q. You include in that number all apartment houses, no matter what the rent is? A. No matter what the rent is, \$10,000 a year and upwards.

Q. How many inspectors and supervisors have you that are authorized to carry out the orders and rules of the Department?

A. At the present time the number of inspectors is two hundred and fifty-two, and I think they have twenty-two supervisors. That is about two hundred and seventy-four inspectors of all grades for new and old buildings.

Q. Do you cover fire-escapes on apartment houses? A. Yes, sir.

Q. And light and ventilation? A. Yes.

Q. And that is about all you do cover, is it not? A. Sanitary appliances and so forth.

Commissioner DREIER: Employment in tenement houses?

The WITNESS: No.

Q. That is everything? A. Everything relating to the physical structure of the house.

Q. How about manufacturing in tenement houses? A. We have no jurisdiction whatever.

Q. None whatever? A. No.

Q. So that if a part of an apartment house is used for manufacturing purposes, they can shut the door in the face of a tenement house inspector? A. No; we have the right to enter every and any apartment in every tenement house for the purpose of inspection, and if the conditions produced in them operate detrimentally to the other parts of the building, we might be able to file a violation, if it was due to any physical condition.

Q. How about fire-escapes and the fire prevention in manufacturing in tenement houses? A. We require them to have the same fire-escapes as would be required for a tenement house where they did no manufacturing.

Q. How about having any more? A. We have no right to order any fire-escapes except such as are sufficient to provide for the number of apartments. The law says that every apartment shall have direct access to a fire-escape without passing through a public hall, and our rules and regulations prescribe what the width of the fire-escapes shall be, the balcony or stairway, and what weight of iron shall be used in the construction of it.

Q. But nothing is said as to the number of persons who may occupy or work in a particular apartment? A. No, the law as it reads considers all rooms in apartment houses merely from the standpoint of living rooms, not as being possibly used for manufacturing purposes.

Q. What control has your Department over the use of cellars for manufacturing purposes, bake shops? A. Bakeries?

Q. Yes. A. I have some figures here.

Q. Suppose you give them to me. A. These figures show there are 2,226 bakeries located in tenements in all the Boroughs, that is, in the whole city. Of those, 1,432 are adequately fire proofed. The work of insisting on this fire proofing was taken up actively the year before I came into the Department, 1909. And that leaves 794 bakeries which do not appear to be adequately fire proofed, but an investigation of the record shows that they are merely defective in some unimportant particular. That is to say substantially all bakeries in tenements have been either fire proofed or have had work commenced upon them, so that we do not think that there are any bakeries to-day which have not made attempts to comply with the law.

Q. What do you mean by fire proofed? A. Why, the ceiling and posts and uprights have to be of fire proof material and fire proof construction, and they have to be cut off entirely from access to the other parts of the building, wherever there is any fat boiling done on the premises. The exact requirements of the fire proofing I can give you.

Q. Yes. A. If you wish to have them.

Q. If you please? A. The chief inspector, Mr. Robinson, is here. Mr. Robinson, won't you just tell us exactly what the fire proofing requirements are?

(The witness conversed with Mr. Robertson, after which Mr. Elkus stated that this matter would be taken up later.)

The CHAIRMAN: If you want to make that part of the record, perhaps you had better have Mr. Robinson sworn as a witness, or else he can communicate to the Commissioner, and have the Commissioner tell us.

Q. How about waste and rubbish in cellars, and the use of cellars in tenement houses as storage places? A. We issue orders continually for the removal of rubbish. Disregarding the fact as to whether the rubbish or waste material was caused by manufacturing in the building or not, the mere fact of its presence there from whatever cause, constitutes from our point of view, sufficient reason for issuing a violation and bringing a prosecution for its immediate removal.

Q. How about their use as store rooms, without there being rubbish there; what has been your experience as to that? What have you found has been done? A. We have only a right to interfere with it when the storage is of combustible material. The language of the law is quite explicit, and by determining what we may prohibit, it seems to indicate that we must allow what is not here specifically given. I will give you the section. I refer to Section 39 of the law. (Witness reads Section 39 of the law.) "No tenement house nor any part thereof, nor of the lot upon which it is situated, shall be used as a place of storage, keeping or handling of any combustible article except under such conditions as may be prescribed by the Fire Department, under authority of a written permit issued by said Department. No tenement house nor any part thereof, nor of the lot upon which it is situated, shall be used as a place of storage, keeping or handling of any article dangerous or detrimental to life or health, nor for the storage, keeping or handling of feed, hay, straw, excelsior, cotton, paper stock, feathers, or rags."

Q. That is where you conflict with the Fire Department? A. That is where we co-operate with them.

Q. Another way of spelling the same word. Now, about spontaneous combustion, where they store trunks and other things? A. I regret to say that our Department does not have the services of an expert.

Q. I presume that you would recommend that it ought to have. Now, Commissioner, taking up the question of manufacturing in tenement houses. Have you any suggestions to make as to the Department being placed in control of them or not; you practically have no jurisdiction over manufacturing in tenements unless the structure of the building is in question? A. Exactly. It

seems to me that the jurisdiction of the Tenement House Department might be extended, but it ought not to be extended beyond the point where it is necessary for the protection of the lives and health of the people living in the tenement houses. That is to say, we ought to be limited, I should think, to their regulation and maintenance connected with light and ventilation and the sanitary requirements, and the fire protection, and probably general construction. I do not think we ought to have any jurisdiction over the material produced in tenement houses.

Q. You think your Department ought to have jurisdiction over everything with reference to manufacturing in tenement houses except the thing manufactured? A. Exactly; because the detrimental effects of such manufacturing has to do with the lives and health of the people living on the premises.

Q. Would not that conflict with the Health Department and the Labor Department? A. I think not, necessarily. It is not a difficult line of demarkation to draw between what the functions of the Health Department and Labor Department would be under the circumstances.

Q. Commissioner, are you in favor of prohibiting manufacturing in so-called tenement houses, with the exception of perhaps the first floor, we will say? A. Absolutely. I think there ought to be no manufacturing or business done in tenement property above the ground floor.

Q. Above the store floor? A. Above the store floor. In fact, I believe that the purpose of the law was to make it as difficult as possible to maintain bakeries in tenement houses. To enable those bakeries to continue does require an expenditure of a large sum of money on the part of owners, so that I am of the opinion that in tenement houses, manufacturing ought not to be permitted above the ground floor.

Q. Of any kind? How about people working at home,—I mean doing manufacturing, sewing of coats, garments, in apartment houses; where they bring the work home from some manufacturing establishment and do it there? A. I had not thought about that. I should not think, on the whole, more restrictions should be placed on people living in tenement houses than living in individual homes except as it prejudicially affects other residents.

Q. Do you believe it would be wise to insist that every place where manufacturing is carried on should be licensed? A. No.

Q. Do you believe that every place where manufacturing is carried on should be registered with some authority, so that their location may be known? A. I do not think so.

Q. Has it not been difficult for your inspectors to find places where manufacturing is carried on? In fact, is not the only way they find out, when they stumble across them in your annual or more frequent inspections of buildings? A. We never sought to find out where manufacturing is done.

Q. You have of course a registration of the tenement houses? A. Yes, sir.

Q. And no person can permit tenants to occupy a tenement house until the Tenement House Department has issued a permit? A. Quite right.

Q. But that does not cover manufacturing; that only covers living, or occupying for any purpose? A. Our certificate merely covers the general right to occupy and use the house; it does not specify.

Q. Why would it not be proper for some Department to authorize the use of a tenement house or a portion of it, or any other building, for manufacturing purposes, before it was used? A. I do not say it would not be proper. I say that I had not thought of it, and my general impression was not that way.

Q. Would it require any increased force in your Department to provide for any additional jurisdiction over manufacturing in tenement houses? A. I think not.

Q. You could cover that with the force you have? A. But I would like to explain my answer. We have had for three years an annual appropriation of about \$40,000 for structural inspection of tenement houses. That structural inspection of the whole city will be completed by not later than the first of June of next year, and this force of inspectors would probably have to be let off. In fact, I have only asked the Board of Estimate for a six months' appropriation to cover their work, so that while it would not require any increase in the force, it would mean retaining some whom otherwise we would be able to dispense with.

Q. How about your Department having control of the bake shops which are located in tenement houses? A. We have such

control over them now, but we have no control over the production of the bake shop, and I do not think we ought to have.

Q. What control have you? You have control over sanitary conditions? How about toilets and things like that? A. Oh, yes, as long as they are on tenement premises.

Q. Then it is your Department that has jurisdiction to see that they are kept clean and in order, as well as the Health Department? A. Of course; I have always assumed their function was directed largely to seeing that the products of the bake shops were sanitary, as ours is to seeing to the construction and maintenance of the bake shop.

The CHAIRMAN: What are you going to do with reference to rubbish and so on in a bake shop?

The WITNESS: If we find rubbish in a tenement house or on the lot on which it is situated, or any unsanitary matter, we order its removal, and if it is not removed in a reasonable time a violation is filed and the owner brought to court.

The CHAIRMAN: You have not anything to do with the cleaning up of bakeries or ordering certain repairs to be made, which would make the bakery more sanitary?

The WITNESS: No.

By Mr. ELKUS:

Q. You can order repairs to the structure? A. Yes, sir.

Q. If there is a leak in the sewerage or water pipe, you could order those repaired? A. I have a number of instances in mind where that has been done.

Q. Commissioner, does it not require co-operation between departments, which, as their information is based upon different inspections, makes it practically impossible to bring about a desirable result? A. The Charter now requires the city departments to co-operate with us in the work that we may find it necessary to do, and I would not like to answer the question in either the affirmative or the negative without a good deal of consideration. In general I have found the departments willing and

anxious to co-operate. I might say that no complaints have reached the Tenement House Department of unsanitary bakery conditions that I am aware of.

Commissioner DREIER: I want to ask you whether these bakeries that you have testified to in tenement houses are cellar bakeries?

The WITNESS: All cellar bakeries.

Commissioner DREIER: Would you advise the prohibition of cellar bakeries?

The WITNESS: I might say that my own belief is that baking in tenement houses ought not to be permitted.

Commissioner DREIER: Not permitted at all?

The WITNESS: Not permitted at all; but going to the point of the practical question of prohibiting two thousand and odd bakeries, where it may be an important part of the carrying charge of the building, and so on, after the owners have complied with the specific legal requirements for making them in proper shape, is another question.

By Mr. ELKUS:

Q. In other words, you say this: in all new buildings it should not be permitted; that is, in buildings built after a certain time?

A. Well, when you say all new buildings, a specific case occurs to me up in the Bronx, a building which is built upon the side of a hill having a very steep incline, and it has a bakery in the rear under conditions which seems to me to be entirely sanitary and proper. It is true it is a cellar bakery judged from the grade of the street on which it stands, but as the hill slopes away very rapidly, the windows are opening on the floor level, so I would not say under all circumstances that a bake shop might not be quite sanitary and without any harm to the building.

Q. That is a special exception? A. Yes.

Q. And that practically is not a cellar bakery because its windows are more than three or four or five or six feet above the ground? A. Yes. I want to be careful when you say all buildings.

Q. It is quite apparent that in tenement houses there are duplication of inspections by different departments? A. Yes.

Q. Have you any suggestions to make to the Commission as to how that duplication of inspection can be avoided? A. I think it cannot be avoided and at the same time maintain a high standard of efficiency, because men are selected, for instance, by the Civil Service Commission to fill certain positions in certain lines of work, and one of our men, for instance, might be quite unable to make a satisfactory examination from any standpoint except that of a structural inspection.

Q. Would it not be a matter of training, to train him to examine not only for structural work, but as to other matters? A. I believe that the whole tendency of the time is towards specialization.

Q. What I want to suggest to you is the tendency toward specialization, specialization in inspection. Would you be in favor of establishing a state or city Bureau or Department which would have for its object the inspection of all buildings for the purpose of ascertaining violations of law, reporting on the facts, reporting to the appropriate department violation of law, and of the department to whom the report is made having the authority to act on the report of this Inspection Department? I would not.

Q. Why not? A. As I think of the situation.

Q. Why would you not, Commissioner? A. Because I believe that it would be extremely difficult to find men capable of making such a general inspection as the kind you speak of.

Q. Is that the only reason why you would oppose it? A. Yes.

Q. If such a man could be found, would you be of the opinion that such inspection would not only save a great deal of time, but would avoid duplication of inspections which are now taking place? A. The objection which I mentioned is the one that occurred to me. Whether there are other objections or not in my mind, I would not want to say without some consideration.

Q. Will you be kind enough to give the matter consideration?
A. I will.

Q. And communicate your views in writing to the Commission?
A. I will.

Q. At any time before the middle of December, if you will?
A. Yes, sir.

Q. Now, is there anything further you would like to lay before the Commission?
A. There are a couple of things over which we have not control.

Q. I would be very glad—we would all be very glad to hear you.
A. For instance, we find that on the East Side, in certain sections, in tenement houses, that kindergarten classes are conducted. We have no right to prohibit those. The lighting and ventilation of the rooms where the schools are conducted are very poor; the toilet facilities are poor, and there is no special provision made for special fire-escapes in case of danger. It seems to me that that is a matter which might profitably be looked into, to see what could be done to remedy it. You asked the question of me, if I remember rightly, whether we thought we ought to have exclusive jurisdiction over fire prevention in tenement houses.

Q. Tenement houses, yes?
A. I presume the question was asked with a knowledge of the fact that the fire prevention law as passed does exclude tenement houses from the control of the Fire Department?

Q. Yes.
A. It seems to me that we should have entire control of fire prevention in tenement houses.

Q. You see, the Hoey bill which was passed was regarded by the Governor as but one step in a comprehensive plan of legislation; he refers to that in his message.
A. Yes; we think the work of fire prevention and ordering out rubbish and so on is pretty effectively done now. The new law buildings have demonstrated their practical, absolute safety. Of course, there are two points of view from which fire prevention has to be considered. One is the safety of property, and the other the safety of life. We do not concern ourselves, I may say, with the question of the safety of property; we do not think that is our concern. We are there to see that such conditions are produced as will make escape in case of fire practicable. Now, since I have come into the Department, with, I think, a single exception, there

has not been a life lost by a fire where the cause was due in any way to lack of means of escape. There was one case I can recall in which there was not proper means of escape, due to the fact that an apartment which was formerly a single apartment, running through from front to rear, was divided in two without the knowledge of the Department, and the people who were in the rear part of it, not having access to the fire-escape, could not save themselves. That is the only case I can recall, after having made a careful investigation of the fires that have happened since I have come in, in which it could be said that any life had been lost because of lack of proper means of escape. As you know, we have said a number of times, so far as new law tenements are concerned, they seem to be the safest buildings in the world. There has not been a single life lost in a new law tenement in the ten years since the passage of the Tenement House Law.

Q. Is there anything further? A. I do not think there is anything further.

The CHAIRMAN: You were asked whether you favored licensing of all places of manufacture. My recollection is that you said no. I would like to know what your reasons are?

The WITNESS: Because it practically amounts to a denial of what I think is a natural right of a man to do business without getting a permit from the government.

Q. Well, a man has a natural right to live in his own house without a license? A. I am constitutionally opposed to interference with a man's right to make a living. That is the fundamental reason of my objection.

The CHAIRMAN: If the license affects only the sanitary condition of the place in which the business is to be done, would you they say that no license should be required?

The WITNESS: Well, licensing a house for a specific purpose, and licensing a man to do a specific business, seems to me to be different things. There are certain businesses which for the general safety of the public, of course, it is necessary should be done under restriction; but I mean when the broad general question

is put to me, as to whether I would favor a law which would prohibit any one from going into business except with the consent of the government, I should be inclined to oppose it.

MR. ELKUS: That is not the point.

THE CHAIRMAN: No.

Q. The point is this, Commissioner: the law requires that in a manufacturing establishment there shall be a certain amount of air space; there shall be a certain number of windows; there shall be a certain space for the aisles; there shall be certain kinds of machinery; there must be certain exits; they must be arranged in certain ways; there must be certain staircases or elevators, and things like that. Now, under the present method, a man puts up a building, which is, we will say, a loft building, he does not have to say what it is going to be used for, except that it is going to be used generally for either offices or lofts or selling goods or storing merchandise, or for manufacturing; it is all the same thing. There is no way of knowing——

A. (Interrupting) I beg your pardon, I understand the Bureau of Buildings requires a statement as to whether it is to be a loft building or office building.

Q. Yes, but it can be both; it can be built in such a way that it can be used for both purposes. But let us assume he says it is a loft building. That loft building may be used simply for the storing of merchandise, the sale of merchandise, and there may be no manufacturing, or there may be manufacturing, and after that building is completed, and tenants move in, nobody knows except perhaps the tenant and the owner, whether they are going to manufacture anything or not, and no Department of the state or city has any way of finding out what is going on in that building, except as they happen to come across it, in either an annual inspection, or an inspection after one or two years. In fact, there have been cases where manufacturing was carried on in a building built over a year, and no Department knew anything about it, and I think there have been cases where it has been going on for five years, and they did not know any-

thing about it. To remedy that, do you see any objection to each manufacturer before he begins, either obtaining a license or registering, and getting some kind of a permit to go ahead after inspection of his plans? A. It seems to me that the difficulty which you explained there could be met by extending to factory buildings the same sort of continual inspection which the Tenement House Department now gives to tenement houses.

Q. Yes, but we might not know whether the building was a factory or not; how would you find out? A. I might ask the question, how do we find out a building is a tenement?

Q. Because a man has to come to you and get a permit to occupy the building. A. Sure he did.

Q. That is according to law; isn't it? A. No; the situation is this: it is a state of facts which determines in the City of New York whether a house is a tenement house or not. If it is occupied by three or more families living independently, and doing their own cooking, it comes under the tenement house control. We did not have, in regard to those buildings erected prior to 1901, to issue a certificate of occupancy. It is only with new buildings that that certificate is required.

Q. I understand that. A. Therefore we have a right under the Charter to visit and inspect all buildings of whatever character for the purpose of ascertaining whether they are being used as tenements or not.

Q. I understand that; but now every owner of a tenement house has to register his name with the Tenement House Department, and the fact that he is the owner of an apartment house? A. That is required by law to-day; as a matter of fact, the Tenement House Department has not more than fifty per cent. of the names of owners.

Q. I mean we are questioning about the requirements of the law? A. Yes.

Q. I am not speaking of a man who intends to violate the law; we are assuming that every manufacturer would comply with the law. Of course there are men who build houses where there is some dispute as to whether they are tenement houses or not. I am speaking of new buildings that are going to be erected, or for that matter, we can apply this to old buildings. What objection can there be to a manufacturer being required to reg-

ister the fact that he is manufacturing or intending to manufacture? A. I did not say I was opposed to registration; I said the question of license——

Q. Well, take registration? A. It seems to me that that might very well be required.

Q. The next step would be, why should a man be allowed to partition off his premises for manufacturing purposes in such a way as to make it dangerous, when that could be avoided in the first instance by his submitting his plans of dividing off his building, or of his lofts, to some proper Department, and their passing upon it? A. My understanding though is, Mr. Elkus, that that is substantially required now.

Q. Only in certain cases; it is only where the partitions are up to the ceiling. They can partition within a certain space of the ceiling, and they do not have to comply with any law. A. No one can do it now in a tenement house.

Q. I understand the tenement house; that is what we want to apply to the other buildings. A. As I say, I quite agree with you as far as all that is concerned.

By Commissioner DREIER:

Q. Do you think the fire law as it is to-day in reference to fire-escapes on tenement houses is sufficient? A. There are two points in which it is defective or may be defective. One is that we have no power to order old buildings that have fire-escapes on already, of whatever type they may be, to change those fire-escapes, unless they become physically defective, so that they will not bear weight; and another is that we have no power to order fire-escapes on what are known as fireproof buildings. Now, one might assume that a fireproof building did not need a fire-escape, yet many owners and many tenants believe that they are not actually safe in buildings that are nominally fireproof without a fire-escape, but we have no right to order them on, as the law stands.

Q. The new law tenements, are they also supposed to be fireproof? A. Over six stories in height. Under six stories in height the important parts of them have to be fireproof; that is, the stairways are fireproof, the doors leading to each apartment are fire-proof and self-closing doors.

Q. Do you find that in the tenement houses where the houses come close together in the rear, you have the same difficulty as in factories, where the fire-escapes lead to a blind alley? A. No; there is a general provision in the law that wherever the Commissioner finds insufficient egress exists, we can compel that egress to be made either into an adjacent yard, or if that is impossible because of the character of the construction around the yard, we can compel them to construct a fireproof passageway leading from the yard to the street, so I think it will not be found there is a single tenement house in New York to-day which has not got adequate egress.

Q. I want to ask just one more question, in reference to the tenement houses; can you control the number of boarders which can be housed? A. Legally, yes; practically, with great difficulty. The process is this: the law requires that there shall be four hundred cubic feet of air for every adult, and two hundred for every child. If we find the house is occupied by more than the number of people to furnish that amount of air we have to serve a notice of violation on the owner who has five days in which to remove it. He always does nominally remove it when he is notified. It simply requires the moving out of some people for a few days, and when we send our inspector there and find that the number of people living there has been reduced, we have no option but to cancel the violation. Then if another complaint comes, or an inspection seems to show that the old condition has returned, we have to file another violation and give him five days' notice again to remove it. So that it is like pouring water in a sieve in a way, so far as attempting to correct overcrowding is concerned.

Q. Is there any way you can suggest by which that could be done? A. Well, there are many ways, but it would take some little time. If you would like to have a memorandum on the question, I should be glad to furnish it to you.

Miss DREIER: Yes.

Mr. ELKUS: We will be very glad to have it.

The CHAIRMAN: We shall be very glad to receive that.

WILLIAM E. ROBINSON, called as a witness, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. You are Chief Inspector of the Tenement House Department? A. Yes.

Q. Will you tell the Commission what was meant by fireproofing a bakeshop? A. The fireproofing requirements vary according to the types of buildings. In new buildings which are five stories or more in height, the ceiling of a bakery consists of iron beams and fireproof ceiling. The walls of the bakery are constructed of fireproof blocks. In smaller buildings and in old buildings where the first tier of beams is not fireproofed, we require the application of wire lath and plaster, and a furring strip one inch in thickness to provide the air space.

Q. This furring piece also keeps the air out, and makes it impervious to water, too, does not it? A. Yes, and of course the partitions in those buildings are constructed fireproof also, so that there are no openings between the bakery and any other part of the building. The law makes provision for a dumb-waiter shaft extending up to the store on the first floor in bakeries where there is no fat boiling, or where there are no cores made, that must be entirely enclosed with brick walls, and there can only be an opening in the bakery, an opening in the store, and the doors to these openings must be arranged in such a manner that when one of them is practically opened, the other is entirely closed, so that there is no means of communicating fire from the bakery itself to the other.

Q. Have you explained now fully what fire protection of a bakery shop is? A. Yes.

DR. WALTER BENSEL, called as a witness, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. How long have you been connected with the Health Department? A. Nineteen years.

Q. Will you state what your connection has been with the Department? A. Practically every connection, from inspector up to the sanitary superintending.

Q. You have gone right up through the grade? A. Yes.

Q. Beginning with the ordinary inspector? A. Yes.

Q. At what salary? A. \$1,200 to begin with, and \$7,000 now.

Q. And you have occupied practically every position between the lowest grade of inspector up to the position of being Health Commissioner? A. No; I have skipped some. There were too many to occupy all the way up in that time.

Q. Are you a physician? A. Yes.

Q. Did you practice your profession? A. I did, and do.

Q. And do still? A. And do still.

Q. Will you tell us where you graduated? A. Graduated in 1890 from the College of Physicians and Surgeons.

Q. Receiving the degree of Doctor of Medicine? A. A degree, yes.

Q. Are you a graduate of any other institution of learning? A. No.

Q. Now, will you tell the Commission generally the activities of the Health Department, and what its jurisdiction is, especially with reference to manufacturing establishments, including bakeshops and other such businesses? A. Well, it did have jurisdiction over all places where a nuisance might arise, or where any detriment to health, or danger to life might arise, but within recent years in certain particular places, notably bakeries under discussion at the present time, our jurisdiction has been more or less removed, or jurisdiction has been given to other officials who are naturally more or less removed from us.

Q. Has your Department to-day any authority or jurisdiction over manufacturing outside of bakeshops? A. Well, I think that we have the authority. I think there is no question but what the authority still remains, but the authority having been given in many instances to other people, we have not used our force or our means in duplicating other work.

Q. Do you make any inspection of toilets, for instance, in manufacturing establishments? A. We do.

Q. To see whether or not they comply with the Sanitary Code, and Health Department requirements? A. Yes; that is particu-

larly in manufacturing establishments where foods are manufactured.

Q. Why do you make that distinction there? A. Because we feel that in the case of defective plumbing, and dirty or filthy water closets, we are liable to have detriment communicated to the food; we are likely to have the food value interfered with.

Q. Do you, in other manufactories where food is not manufactured, make any inspection as to sanitary conveniences? A. At times, yes; not independent of complaints, as a rule; simply in response to complaints received.

Q. So that the Commission will understand as to all manufactures, except where food products are manufactured, or food of some kind is manufactured, you make no regular inspection unless it is called forth by some specific complaint? A. That is perfectly true, and I might add to that that we would be utterly unable to make any number of original investigations for the reason that our time is taken up almost entirely with the investigation of complaints received.

Q. Doctor, what inspection do you make of manufactories where food is manufactured in some form? Do you make regular ones, or are they only when complaints are received there? A. Very largely, and I think mostly, when complaints are received. In many instances, of course, we do make original investigations of food places to determine the quality of foods which are being manufactured, or to determine the conditions under which they are being manufactured.

Q. Of whom does the Board of Health consist? A. The Health Commissioner, who is president, of course, the Police Commissioner, and the Health Custodian of the Port of New York.

Q. That practically means, I suppose, that you yourself constitute the Health Department? A. I would hardly say so; not for a moment. The Board of Health is at the head of the Health Department, and inaugurates all new policies and issues instructions for the carrying out of these policies, and it falls upon the Sanitary Superintendent in general to carry out the policies of the Board.

Q. Will you explain to the Commission how your Department is divided, what Departments there are in it, and how many

inspectors there are in each Department, and what each Department does? A. We have essentially two Bureaus in the Department of Health — Sanitary Bureau and Bureau of Records. The Bureau of Records has to do with vital statistics at the present time only. The Sanitary Bureau, comprising the rest of the Department of Health, about 96 per cent, 97 per cent of the Department is made up of the Sanitary Bureau. The Sanitary Bureau is divided into a good many different divisions. We have a Division of Communicable Diseases which is a very large division, and deals only with the diseases that are less readily carried from one person to another, such as tuberculosis and typhoid and diseases of that kind. We have a Division of Contagious Diseases, which deals with very readily transmitted diseases, such as smallpox and scarlet fever, diphtheria and measles. We have a Division of Food Inspection, which is supposed to simply care for all the places where food is manufactured, and to inspect and determine the condition of food stuffs for sale or kept for sale in the city. Then we have a Division of Child Hygiene, which takes care, more or less, of health conditions which concern the child from the time it first comes under our care in any way, and carries that supervision through the school age, and involves the issuance of employment certificate and includes the supervision of midwifery. Then we have a Division of Hospitals, which takes care of the three hospitals of the Department, which may include as many as fifteen hundred patients when we are fairly crowded. Then we have a Division of Laboratories, divided into Research Laboratory and the Drug Laboratory and the Chemical Laboratory. Besides that we also have a Diagnosis Laboratory, which does not belong to that division, but belongs to the Division of Communicable Diseases, where diagnoses are made for the convenience and information of physicians, and also for the purpose of keeping down contagious diseases.

Q. Now, Doctor, will you take up the Bureau of Food Inspection and tell the Commission what officer is at the head of that Bureau — I mean what position of authority has he, and how many are there under him, and what the functions of that Bureau are, and what they do? A. The Division of Food Inspection has,

as every other Division in the Department of Health has, a Chief Inspector, who may be any employee of the Department of Health that the Board of Health assigns to that particular duty. At the present time the Chief Inspector of the Division of Food Inspection is an assistant sanitary superintendent, a higher officer than any of the other divisions has.

Q. Who is he by name? A. Doctor McMillan.

Q. Will you tell us the duties and powers and work of that Department — that Division, I should say? A. The Division is composed of two elements; a Division of Milk Inspection, or Department of Milk Inspection, and the Division of Food Inspection, taking in all other varieties of food. In the latter we have about thirty inspectors, including the Chief Inspector, and those thirty inspectors are supposed to ascertain the condition of food stuffs, and to condemn and destroy food stuffs all over this great city. They are utterly inadequate in number, without any question. We cannot cover the wholesale places; we cannot half cover the retail places where foods are either manufactured or sold.

Q. What is the system of inspection so far as you can inspect? A. Well, divided into two parts. One part consists of investigation of complaints and destruction of food stuffs found in that way, found unfit for human consumption, and the other part consists of original inspection and the watching of retail places, and practically the watching of wholesale places, so far as we may be able to cover them.

Q. How many inspectors are there in the Department attending to complaints? A. Practically all the inspectors are attending to complaints.

Q. I mean in this Food Division? A. All of them.

Q. The whole thirty? A. The whole thirty.

Q. Is it not a fact, Doctor, that these thirty inspectors attend to all complaints that are made and if they have any spare time they do original inspection? A. They attend to all complaints made in regard to food stuffs.

Q. I am limiting my question now to food stuffs. If they have any spare time they attend to original inspection? A. They do, and they do have spare time for original inspection in that division.

Q. On what system is the original inspection conducted? A. We know there are certain places where foods are sold at wholesale, commission houses, receiving docks, and places of that kind. They are kept under observation, so far as we can, with the force.

Q. But there is no regularity about it? A. Well, it is regular, yes; perfectly regular, but it is more or less superficial.

Q. I mean regular in intervals? A. No, no regular intervals.

Q. I mean there is no regularity in time of inspection, but why is it superficial? A. Superficial because of the limit of number. There is no regularity of time, and I do not think there should be any regularity of time, because we may have to make inspections in a given time, and any number, and in some cases we may not be required to make inspection but once in two or three months; the exigencies of the case should determine the number of inspections.

Q. In food inspection cases, do you order food destroyed when you find it to be improper, or do you make them improve the sanitary conditions? A. We order the food destroyed whenever we find it in improper condition.

Q. How about making them improve the sanitary conditions? A. We always do where that seems to interfere with the food condition.

Q. How much salary do these inspectors receive in the Food Department? A. The lowest inspector in the Division of Food Inspection receives \$1,200. The highest of the ordinary rank and file receives \$1,500, who are supposed to be a little bit better, and are supposed to be utilized for mainly supervising the inspectors, to see that the \$1,200 men are doing their work.

Q. How many are there? A. Three at \$1,500.

Q. Twenty-seven inspectors and three supervisors? A. Yes.

Q. Are these men all appointed through civil service? A. Yes.

Q. Do you believe that there should be a different inspection of food manufacturing places? A. Different from —

Q. From what you have told us there is now? A. Absolutely; there is no question about it.

Q. Tell the Commission what, in your opinion, should be done, and tell us why you believe it should be done? A. In the first place, the wholesale places should be adequately covered.

That is the place to catch your food in enormous quantities, to catch them before they get to the retail places where they will be so distributed they are very difficult to keep track of.

Q. By the wholesale places you refer to those who receive merchandise of foods from out of the city, and do you also refer to the places where they are manufactured? A. Surely; wherever they are dealt with in large quantities, and sold either to the middleman or to the retailer.

Q. Now, go ahead, Doctor, and tell us, because we want to know; we are very anxious to know what should be done in your opinion to bring about better conditions of food products than now exist. A. Well, if you start with the wholesale places, which may be wharves or railroad terminals or commission houses, and perform adequate inspection there, it diminishes very much the necessity for inspection in the retail places, except so far as the conditions are concerned that actually interfere with the condition of the food in those places. Of course, I do not think that any inspection system which leaves out of consideration the retail place entirely will be adequate.

Q. What do you mean by adequate inspection? A. It depends on the place.

Q. Would inspectors be required to be present every day? A. In the wholesale places.

Q. Wholesale places? A. Absolutely, every day and all day business is going on.

Q. In other words, an inspector would have to be located in every wholesale establishment? A. Undoubtedly.

Q. Now, take a bakery, for instance, what would you do about that? A. There are a good many different kinds of bakeries. In the first place, the enormous wholesale bakeries, where bread and cake are made on a very large scale, most of them are run on a very excellent method, and run very well; they would require simply a visit from time to time to see that the conditions were maintained in a proper way, and to see that the material that is actually put into the finished product were of proper variety and of the proper food value.

Q. Now, let us take the two thousand bakeries that are conducted in cellars in Manhattan Island. A. I think we are very

apt to assume too much when we say conducted in cellars. A cellar technically is a room which is a little more than half below the level of the ground. Now, such a room as that may be perfectly well ventilated, and may be just as good as any other kind of building, but if you mean some of these cellars that are entirely under ground, and are not ventilated and cannot be ventilated, I say it is absolutely wrong.

Q. Please describe to the Commission the conditions with reference to bakeries of the kind you have referred to. A. The latter kind?

Q. Yes; all kinds, both kinds. A. Well, I have seen some bakeries, personally, that are half below the level of the ground, that have adequate windows, that have adequate ventilation for the removal of gases and odors from the cooking and from the ovens, and that can be maintained and are maintained in a very cleanly and proper condition. And I have seen places of the same kind that are maintained in absolutely improper condition, and in filthy condition, and then I have seen these places that are underground, that have no windows whatever. They have no means of ventilation, no possibility of ventilation. I say they are absolutely detrimental to the condition of the food stuff, and detrimental to the health of the people that work there, and they are improper from every standpoint.

Q. And should be prohibited, of course? A. And should be prohibited.

Q. Doctor, how many would you say there were of the latter class? A. A few nights ago I visited thirty, and of the thirty, I found nineteen that were in that latter class.

Q. Had you any power over them? A. Yes; they are all closed now.

Q. How long had they been in existence? A. I have not the slightest idea, but we have not any force to keep up that work.

Q. You have not sufficient force to find out whether or not such bakeshops existed? A. To a certain extent, yes, but not to the extent of really limiting the business to proper bakeshops throughout the city.

Q. Now, what do you suggest should be done with reference to examining bakeshops in New York city? A. I think the law is

absolutely adequate from every standpoint, whether it be considered the duty of the Commissioner of Labor, or the duty of the Department of Health. There is no trouble, however, if we find a place that should be closed, in closing it, from every standpoint. The only question is the means of finding the places, and of taking the action, and it is not fair to take action in the case of nineteen or twenty of those places, and leave one thousand others all over the town doing business under the same conditions.

Q. That is being done to-day? A. That is being done to-day because of lack of facilities for inspection.

Q. There is not a conflict of authority, but there is a duplication of authority between your Department and the Department of Labor in regard to these bakeshops? A. No conflict of authority whatever.

Q. I say duplication of authority? A. Yes; that is my assumption. I am not a lawyer, you understand.

Q. Your assumption is that there is authority both in the Labor Department and in your Department? A. Yes.

Q. And neither Department seems to have had either the capacity to inspect or to punish violations of the law? A. I do not know about the Department of Labor; I know we have not the force.

At this point a recess was taken until two o'clock, to meet in the room occupied usually by the Board of Estimate and Apportionment.

Dr. WALTER BENSEL, recalled.

Examination by Mr. ELKUS:

Q. We were discussing just before we adjourned for recess, the inspection and examination of the bakeries by your inspectors of food stuffs. Will you go on? You were telling us how it was done and what you did do, or did not do. A. I think we went a little farther than that, did we not? The condition of the bakeries was dwelt on, that they had been inspected recently.

Q. You told us how you had inspected some thirty bakeries which you found to be conducted in violation of the law and of

the sanitary code and that they were closed? A. Some nineteen out of the thirty.

Q. Nineteen out of thirty? A. Yes.

Q. What do you suggest should be done with reference to the inspection of bakeries? A. My impression is this: the law is perfectly adequate as it stands. The facilities are absolutely lacking in any Department having authority to carry on the work.

Q. When you speak of facilities, what do you refer to? A. Men.

Q. You mean men to do the work of inspection? A. To carry on the work of inspection.

Q. How often, in your opinion, should the bakeries be inspected? A. It depends entirely upon the bakery.

Q. Take the bakery, I won't speak of it as a cellar or in the cellar, but in the lower part of a house or building that is either used for business or dwelling purposes? A. I don't think any bakery of that kind should be inspected less than once a week. It is impossible to maintain them in a cleanly condition unless they are inspected once a week.

Q. How many men would you require to inspect them once a week? A. I haven't any idea of how many bakeries there are in the city. There are about four thousand altogether, but roughly speaking, I believe there are two thousand which are located on the ground floor of dwelling houses. When I say ground floor I mean either on the level with the ground or below the level of the street, in a part of the building. That is two thousand inspections every week in the city.

Q. Yes. A. Presumably one man in a fairly well congested part of the city would inspect from 25 to 30 bakeries a day.

Q. Is there any standard which has been provided for the bakeries — for instance, as to the methods to be used; as to the condition in which they should keep their utensils; as to how bread should be manufactured and the standard of purity; kind of flour that is to be used and quantity of flour and other ingredients and material? A. With regard to the actual manufacture of food stuffs, there are standards required for the maintenance of the bakery; there are standards which are required for the actual

carrying on of business. Those are all requirements of the State Labor Law. So far as the Department of Health is concerned, the sanitary health law is concerned, that does not mention bakeries or take up bakeries as such.

Q. What do you do now with reference to inspecting the quality of the food which is produced? A. We only go on one qualification, the question of whether it is fit for human consumption or whether not fit for human consumption.

Q. And that depends upon the judgment of the inspector? A. It depends very largely upon the inspector; the question of condition as to decay of food stuffs and secondarily as to the presence of material that may be dangerous to health.

Q. Now you have the same duplication of authority that exists in so many other Departments in this city? A. I think so.

Q. With reference to the inspection of food, for instance? A. Yes.

Q. Do you believe that should be continued? A. I do not. I don't believe that duplication of authority should ever be continued anywhere.

Q. What suggestion do you make with reference to the duplication which does exist in the inspection, for instance, of food products, by the Labor Department and yourself, and in the inspection of buildings where food products are manufactured? A. As the Department of Health is concerned with the preservation of life and health, it seems to me the responsibility should belong and should be placed upon the Department of Health to safeguard those particular places and the food that is manufactured in those particular places. It is a Department of Health matter, to my mind, entirely.

Q. Do you believe that jurisdiction should be taken away from the Labor Department in reference to that, and placed with your Department as far as New York city is concerned? A. Absolutely.

Q. How many more inspectors would you require, if any? A. It has been calculated that it would require something like 150 to 160 inspectors, but it is difficult to know because we have no idea as to the number of places which would require inspection a week.

Q. There are, of course, many other manufactories where food products are either manufactured or completed, if that is the proper term? A. Yes, sir.

Q. Is there any inspection of those — for instance, candy factories? A. Candy factories, yes, but the inspection is limited to a very large extent to the inspection of the finished product, owing to the scarcity of inspectors.

Q. That is to say you examine the finished product when somebody complains, or your inspectors happen to find a lot of decayed articles that are unfit to eat? A. We frequently examine the unfinished article for the presence of impurities, particularly detrimental impurities that preserves them.

Q. Where do you get your information? A. Frequently we get it from complaints and frequently we simply go from place to place to examine into conditions.

Q. I want to call your attention to this. There appeared evidence before this Commission that there was maintained a manufactory for making candy on Delancey Street where the conditions were absolutely filthy. They were revolting, both as to sanitary conditions, the toilet and the condition of the floor. Inspection had been made for fire-prevention purposes, and, of course, those other facts were disclosed. Now, what is done by your Department to ascertain conditions like that? A. If we find conditions which render the candy absolutely detrimental to health, we would destroy the material on hand.

Q. If you find — the point is this: what steps are taken, if any, to find such conditions? A. We haven't the men to send around from house to house. We can't find that very easily.

Q. Is it your opinion that you ought to have the men to send around from house to house to find such conditions? A. I don't think there is any question about it at all.

Q. I don't know whether you were present this morning when I discussed with Commissioner Murphy the question of licensing or registration of manufactures? A. Yes, sir.

Q. You were present? A. Yes, sir.

Q. What is your opinion upon that question? A. We have in the Department of Health, speaking of licenses, various establishments that are rather difficult to control. I believe that eventually

the way to establish control over places where food stuffs are manufactured is to have them manufactured under a permit only, in accordance with law; to have that permit issued for a certain length of time, and prior to the issuance of the permit, it must be known that the Department in doing it had, at least, one inspection made, so that at least once so often the place would be put in appropriate condition.

Q. Don't you believe, Doctor, that you ought in your Department, to create or regulate certain standards for all these manufacturing establishments of food products, so that a manufacturer and a workingman may know what standards are required? A. I do, if they are operated under permits.

Q. Under permits. A. But if we haven't the force to adequately —

Q. Inspect these places, it is obvious? A. It is absurd to require them to operate under a permit.

Q. Wouldn't such a state of affairs be a guide to a manufacturer who was trying to do what was right? A. Where there was one manufacturer that would act in that manner, there would probably be a hundred of the other kind, and it seems rather absurd to me to adopt standards you can't possibly control.

Q. Your Department, you told us, Doctor, has the examination and the granting of permits to children who are between the ages of 14 and 16, desiring a permit to work? A. Yes.

Q. What is the basis of granting such permits? A. The law is very specific in regard to that. The child comes and presents evidence, presents an affidavit of its parent or guardian, a certificate, evidence of education, and if the Department is satisfied that the real requirement of the law is met, that is, it has had sufficient education, that it has reached the age required by law, then the employment certificate is issued. I don't suppose that you want me to go into every little detail.

Q. No. I want to know if every child is physically examined to ascertain whether it is in good health or in bad health before you issue the certificate? A. I will answer that in this way. That there are many children 14 years of age or under development, and we will not issue a permit in such a case on that ground.

Q. Certainly. Does that mean a permit by a physician? A. It does. I don't mean that the child is stripped and every part of it, the heart and lungs, and all gone over.

Q. Is any examination made of the organs of a child to see, for instance, whether it has tuberculosis, or whether it is a tuberculosis case without any pronounced symptoms? A. Not unless there is some reason for it,—unless it appears on the surface.

Q. That is to say, if a child coughs badly? A. Or appears emaciated, or is under proper development.

Q. Don't you believe your physicians ought to rigorously examine each child who applies for a permit to work between the ages of 14 and 16? A. I believe it would be very proper if we could.

Q. What objection is there, lack of force? A. More funds needed, more inspectors needed for the purpose.

Q. Over the age of 16, a child need not apply for or obtain a permit to work? A. So far as we are concerned there is no supervision over the child who has passed that age.

Q. Do you believe your supervision should extend over children above the age of 16? A. I think somebody should —

Q. Is there any now? A. Not that I know of.

Q. In what way do you believe there should be some supervision? A. I think girls just becoming women require much longer supervision than do men, and a boy, for example, may require supervision up to the age of sixteen or seventeen. A girl, I think, ought to be supervised up to the age eighteen.

Q. When you say the word "supervise" do you mean merely at the beginning at the working period, or do you mean in each case there should be examinations from time to time? A. I mean merely at the beginning of the working period. It doesn't seem to me feasible to keep on examining workers indefinitely.

Q. Even up to any age, it would not be practicable? A. It does seem to me impracticable.

Q. Have you examined into the question of women who are pregnant being allowed to work in manufacturing trades, I mean to say for a month before their confinement? A. They will ordinarily work right up to the time they are confined.

Q. How about preventing their doing so? A. It would be a very excellent thing if you could.

Q. Your being a physician leads me to take the liberty of asking you that question. A. It would be an excellent thing if you could, because, if you permit them to work up to that period, it does interfere with the well-being of the child after it is born. There is no question about it at all.

Q. How long, in your opinion, should a pregnant woman be prohibited from working prior to the birth of children? A. It depends on the condition of the woman.

Q. Suppose she is in good health? A. There is no reason why she shouldn't work up to two months.

Q. For a period of two months you believe, prior to childbirth, a woman in good health should not work? A. At manual labor.

Q. I mean hard, manual labor? A. Hard, manual labor.

Q. And how much of a period of recuperation should she have after childbirth? A. That depends entirely on the kind of childbirth.

Q. Let us assume the most favorable kind, that no difficulties set in of any kind. A. Many women make themselves permanent invalids by going on with hard, manual labor within a week after a child is born. Physicians generally expect to get the best results by keeping women from working and doing any hard manual labor within three or four months after childbirth. Those are the two extremes.

Q. Do you believe that a child who receives a certificate permitting it to work should be required at any period to apply for a renewal of the certificate before the age limit is reached? A. The probability is that in the majority of cases applying for certificates to work, there would be only about a year to work after they get it, so there really isn't any reason to re-examine them, there being no requirement after they reach the age of sixteen.

Q. Have you made any study of general sanitary conditions in other factories and manufacturing establishments than those which produce food products? A. No, I can't say that I have.

Q. Will you tell me what other food products there are in this city than candies and bakeries? A. There are a few rather small canning establishments.

Q. Canning establishments? A. Yes.

Q. Anything else? A. Of course, the slaughter houses and places where meats are prepared, either canned or.—

Q. Or sausage meat? A. Sausage meat.

Q. Do you make any inspection of sausage factories? A. We make a great many inspections of places where meats are prepared, right from the time the meat is slaughtered, and also the places where they are made into sausages.

Q. Do you make those inspections without regard to complaints regularly made? A. Absolutely without regard to complaints, and in many of the cattle slaughtering establishments where federal supervision is not maintained regularly, we have our men there at all hours when the slaughtering is going on.

Q. Do you ever come in conflict with the state in reference to your work? A. I don't remember any time that we ever have.

Q. Or any authority? A. I don't remember any time; I don't think so.

Q. There is more or less duplication in the work, isn't there? A. Yes, there is, wasted effort.

Q. That is what I am coming to. What is the remedy for wasted effort, which costs money? A. Put the responsibility in one place; give facilities to one place.

Q. It has been suggested, Doctor, that there should be a State Bureau of Inspection or a Local Bureau of Inspection, if you please, by which Bureau, under a force of trained inspectors, should be made the inspection of all manufacturing establishments in the state, and its inspectors should report all facts to trained supervisors who would then decide whether there was a violation of law or of the sanitary code, if you please, which is the law, and then report the violation of law to the proper Department with all the facts; and then permitting that Department to proceed at once, either to stop the violation of the law and, if necessary, to punish the violator. Do you think that such a system would be efficacious? A. I believe that it is absolutely wrong.

Q. Why? A. In principle, you are putting the responsibility for making inspections on the present particular Bureau.

Q. Yes. A. The Bureau of Inspection. You are making a certain Department responsible for the remedying of conditions, and you are taking away from that Depart-

ment every bit of the supervision of the actual inspection. No Department can be responsible for inspections made by people not under its control.

Q. Wouldn't the Department which made the inspection be responsible? A. Would they? It would lead to endless discussion, I feel, and the same duplication of efforts, because any Department which was held responsible for conditions of that kind would insist upon making their own inspection after the Bureau of Inspection had made its report, in order to determine whether those reports were actually in accordance with its inspection.

Q. That is because each Department would have a feeling of jealousy? That is what it is, more or less, is it not? A. I don't think so.

Q. Why couldn't you accept, as a fact, the report of the Inspecting Department that certain conditions existed? For instance, referring back to a concrete case, this candy factory. Suppose the Bureau of Inspection reported to your Department the fact that the floors were filthy, that the toilets were unclean or out of order, or sewer gas was escaping,—those are concrete facts and, of course, therefore, a violation of law. You could, on those facts, through the appropriate Department, order an immediate remedying of the violation, could you not? A. You could, and you are assuming responsibilities for the correctness of the report.

Q. Why, yes — you would assume that — the Department that made the report would assume that. A. The Department that takes the action assumes the responsibility.

Q. The responsibility for what? A. Why the responsibility for the order which is used and the expense to which the person is put.

Q. Certainly that would be no more assuming it than if you took a report from a policeman? A. We don't take reports from policemen. We have reports from inspectors of other Departments, from the police and other official sources, and we find we cannot depend for our action on the accuracy of those reports.

Q. Then, as I understand you, there is no remedy for this duplication of report which goes on? A. Yes, sir, I do think there is.

Q. The Building Department inspector would get a good many facts which your inspector would not get — now there is a duplication of effort. Your Department and the Building Department are entirely separate — they have supervision over the building itself, but not of the construction? A. Yes, sir.

Q. And then take it as to some internal arrangement, we will say. Now, both inspectors would have to get a great deal of information from the owner, the number of employees, the height of the building, the size of the floors, the divisions of partitions, etc., which all could be done by one man. How are you going to remedy that? A. In other words, I take it, you could get a corps of inspectors who are experts in their particular line, do you mean that — I doubt that.

Q. I don't think they would have to be experts. They would be experts in your particular line after they had training. A. For example, we have men who are experts in the question of food examination; and we have men who are experts in the question of the examination of plumbing and general sanitary conditions, experts in contagious diseases, and experts in other lines, so we may send two or three men to one particular house.

Q. That could be done too. You might have experts in this Department on different subjects who might ask you to correct the work of other inspectors. You could have one expert who could inspect or supplement the work of other inspectors. If that were done, wouldn't this Department be successful? A. I can't see how any Department could assume responsibility for action on the corps of inspectors not belonging to it.

Q. Are you familiar with medical inspections which are made under the auspices of the State Commissioner of Labor or Medical Superintendent? A. No.

Q. Do you believe there should be a State Bureau of Medical Inspection of manufacturing establishments? A. For what purpose?

Q. For the purpose of determining the healthfulness or lack of healthfulness of the methods of conducting the work. A. Not going into the health of the individual?

Q. No, I am leaving out that for the present. I will come to that in a moment. A. I think that is a very proper inquiry for some Department to make.

Q. Would it be proper for your Department? A. Yes, I think it would.

Q. Would you apply that, also, to medical inspection of occupational diseases of working people? A. It is a question. It could be taken up either by the Department of Labor or the Department of Health.

Q. And also for the purpose of ventilation and light? A. Those are all questions of sanitary or unsanitary conditions of such premises that belong properly to the Board of Health.

Q. And you don't believe the State Department of Labor should have jurisdiction as far as New York city examinations are concerned? A. I don't know.

Q. But, as I understand you, you do believe they should be transferred to the Health Department as far as the city is concerned? A. I say, we should have a Bureau for that purpose, a Division.

Q. You say there should be a Bureau for that purpose? A. A Division.

Q. A Division, yes, the name of which is not of much importance. Would you believe, then, in having an unpaid board of physicians in an advisory capacity? A. Why duplicate our unpaid Board of Physicians in an advisory capacity? We have an excellent unpaid advisory board now.

Q. Of the Health Department? A. Of the Health Department.

Q. You believe in an unpaid advisory board, do you? A. I do indeed.

Q. If we leave out New York city, are you familiar enough with the subject to give an opinion as to whether or not there should be such a medical inspection for all the other cities and districts up the State? A. I won't say for all the cities; but unless it is done in a broad way for the rest of the state, unless you take in the small communities, they don't take any stock in that sort of thing, and they don't do the work.

Q. In certain instances you believe it should be done by the city, and in other portions by the state? A. I think it should.

Q. An unpaid Board should be established in the Department of Labor or other appropriate Department? A. Yes.

Q. Do you say, as I understand it, that you strongly advise an unpaid Board of Medical Advisers for the city, if such a De-

partment is established? A. Yes, sir. Of course, I don't mean a board, an executive board.

Q. Oh, no, an advisory board? A. An advisory board.

Q. Has your Department ever made a report of special investigations to this State? A. I don't think it ever has, as such.

Q. I understand you to say that your Department began inspecting bakeries over a year ago, and I would like to know when you first called attention to the necessity for any increase of inspectors for that purpose? A. I don't think you understood me quite correctly if you understood that. The Department has been inspecting bakeries, of course, together with other places where food stuffs were stored or manufactured or sold, every year since I have been in the Department, sometimes more and sometimes less in accordance with the amount of money it had to spend in that direction. It never has taken up bakeries for themselves, and investigated them by themselves and made reports with regard to bakeries as inspected apart from anything else. The reports of the Health Department that have been made, have been with regard to the general unsanitary conditions in all sorts of places, among which bakeries would have some place.

Q. How much money is allowed your Department by the city? A. Somewhere in the neighborhood of two and a half million dollars.

Q. Have you any emergency fund, not set aside for any particular purpose? A. Everything given to the Health Department is tied hard and fast for certain purposes.

Q. And cannot be used for any other purpose? A. It is not available without permission of the Board of Estimate.

Q. How about any emergency fund? Have you any emergency fund? A. We haven't any emergency fund, but we can ask for one, under a certain provision of the law, and obtain it.

Q. Have you ever had one for this year, 1911? A. No, sir.

Q. Have you had one for 1910? A. I think, I am not sure whether it was in 1909 or 1910 that we had an emergency fund. We got it for building a sewer. But in order to get that, we have had to declare imminent danger of pestilence sometimes, which is rather difficult.

Q. Did you get an emergency fund for this bakery examination, or use that out of your emergency fund? A. Didn't get any bakery fund at all. Whatever examination was made of the bakeries came out of the fund for our regular work.

Q. Do I understand you to say, and do I understand you correctly, that an inspection of these food manufacturing establishments is of the highest necessity and ought to be done? A. That is true.

Q. In your Department, when you are granting a certificate to a child before permitting it to work, do you rely solely on the physiological age of the child or on its actual age according to its birth? A. Both.

Q. Now, suppose the child is sixteen years of age, but appears to be not fully developed, you refuse the certificate? A. Under general circumstances, yes. If the father and mother were both very small, and the child hereditarily should be small, but had reached the proper development, we would give the certificate anyway.

Q. Don't you believe each child should be physically examined before you gave the certificate? A. From a medical standpoint I do not think it necessary. I think there are cases where it would become necessary, but a physician could determine which cases would require it, and which would not.

Q. Do you believe there should be a different standard of examination for different occupations for children? A. I had not thought of it.

Q. How about permitting a child to work, or refusing a child permission to work at certain occupations? A. Everyone knows that certain occupations are much harder labor than others, and it does seem children should be prohibited from laboring at the hardest work.

Q. There is a great deal of food sold, I understand it, in this city, at different stands and peddlers' wagons.

Q. Are you in favor of prohibiting that or permitting it? A. I can see no objection to it, if it is properly covered.

Q. How about selling food in factories by peddlers, in baskets and wagons? A. You mean, cart it in bags and baskets around?

Q. Yes. A. The only trouble about that is that it is difficult of control.

Q. When you condemn food, do you ever trace the source of the food and endeavor to punish the man who ships it? A. If he is inside of our jurisdiction and we can possibly do so, yes.

Q. You do? A. Generally, in this way, that the law only apparently gives us power over the man who actually sells it. A man in such a position, we find out; but if we find the producer is within our jurisdiction, we simply make examination of materials on his premises, and take whatever action is necessary against him, just as quickly as possible. Of course, the foods in most instances are prepared outside of our jurisdiction, and we can only take action against the retailer.

Q. When you speak of your jurisdiction, you mean the city of New York? A. Outside of the city of New York, or some other state.

Q. Outside of the state? A. Or outside of the county.

Q. Have you jurisdiction outside of the city of New York or the county of New York? A. Only indirectly.

Q. Of course, if there were a State Department, they would have jurisdiction of the entire state? A. Yes; but it would not help, because quite as much comes from other states.

Q. Have you ever had any information as to workingmen, working people, sleeping in factories, manufactories? A. I have seen them.

Q. What kind of work have you seen them in? A. In bakeries. I have seen them in every kind of factories.

Q. I presume that ought to be prohibited? A. It is prohibited by law.

Q. It is in bake shops? A. Yes, sir.

Q. I don't think it is by law otherwise? A. Not in the ordinary factory building; no. I doubt if it would be detrimental to anybody's health for them to sleep there.

Q. You say you have seen them in bakeries, how recently? A. Within a week.

Q. How many bakeries? A. Possibly half a dozen. It is a thing you might find to-night and to-morrow night in a bakery.

Q. Is there anything else you would like to speak about before the Commission, or are there any suggestions you have to make as to the purposes of the Commission? A. I think not; I think you have covered everything I could say.

By Commissioner DREIER:

Q. About the condition of bakeries in the city, can you tell me whether any action has been taken except recently? A. The last year we have been inspecting bakeries to a very considerable extent. Over a thousand bakeries have been inspected in the last four months.

Q. There has been improvement? A. There has apparently been improvement.

Commissioner DREIER: I understood that Commissioner Fosdick has made recommendations in relation to bakeries.

Mr. ELKUS: Commissioner Fosdick will be here.

Commissioner DREIER: I wanted to know whether the Department had done anything about those recommendations. I have one other question, about children working. Do you think eight hours is a sufficiently short time for children under sixteen to work?

The WITNESS: I do not like to see children working at all, from any standpoint, but it seems there are conditions in certain families where they are obliged to work for their own support, their own food and lodging.

Q. What, in your opinion, is the chance of further development of a child when it begins to work at fourteen years, for eight hours a day? A. If it is a boy, and if the occupation is in accordance with his development and strength, I do not think it does him a bit of harm. On the other hand, if the occupation is a hard one, it is apt to do a girl a great deal of harm, and interfere with her future bearing of children undoubtedly.

Q. But is there any recommendation you can give us? What is your opinion? A. It seems that boys and girls should be treated very differently. I do not think girls should be allowed to go to work at as early an age as a boy. I think they ought to be more carefully supervised to a later age, and kept under observation.

Q. Now, I believe that girls over sixteen can work ten hours a day. They are not fully developed at the age of sixteen? A. No.

Q. What would be your recommendation as to the hours of labor for girls over sixteen and under twenty-one? A. I do not think they should be allowed to work at any manual occupation for over eight hours. I do not believe in an indefinite issue of a license at all. A license should be for a certain definite period, so as to insure inspection before the license is reissued.

Mr. ELKUS: Commissioner Murphy said he was opposed to either registration or licensing.

The CHAIRMAN: He finally favored registration.

The WITNESS: Registration does not compel inspection; licensing at proper intervals does.

CHARLES E. IFFLAND, called as a witness, and being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. What is your business? A. I am a bakery worker by trade.

Q. You are a baker by trade? A. Yes, sir.

Q. And you are connected with a union, are you? A. Yes, general organizer.

Q. How long have you been general organizer? A. Three years, just three years.

Q. What is the name of the union? A. International Bakery Workers and Confectioners of America.

Q. How many members of the union? A. 22,000.

Q. Does that union embrace all the bakeries and confectioners' establishments in the state or in New York city? A. Throughout the United States.

Q. Have you separate lodges or bodies in the State of New York? A. Yes.

Q. What do you call them? A. Locals.

Q. Local labor unions? A. Yes.

Q. How many are there in the city of New York? A. In the city of New York nineteen; in the State of New York twenty-eight.

Q. Nineteen in the city? A. Yes.

Q. And twenty-eight in the entire state outside of the city?

A. Outside of the city? No, sir.

Q. No, altogether. A. Altogether.

Q. Yes. How many members of those unions are there in this city and in the state? A. In the state are eleven thousand.

Q. In the city? A. In the city not quite six thousand.

Q. Are the wages fixed by the union? A. Yes, sir.

Q. What does a baker receive? A. The principal hands receive nineteen and twenty dollars, and the bench hands sixteen dollars and seventeen dollars.

Q. And those are the only two kinds of workers there are? A. Well, there is this, in the lower districts, in the Jewish districts they receive higher wages.

Q. Higher wages? A. Yes, sir.

Q. How much do they receive? A. Eighteen dollars and twenty-two dollars and twenty-four dollars.

Q. How about confectioners? A. Do you mean the candy makers?

Q. The candy makers. A. In New York city we have not organized any confectioners.

Q. How about outside of the city? A. In New York there is hardly any; in the West we have some organizations.

Q. Are you general organizer for the organization of the United States? A. Yes, sir.

Q. Now, do you inspect the bakeries yourselves? A. Well, we go around the bakeries ourselves.

Q. For what purpose? A. To see the men in there are in good condition.

Q. What examination do you make to find out if they are in good condition? Have them examined by a physician, or just ask them? A. Every member of our organization is examined by a physician on entering the organization.

Q. Yes. But not after it? A. Well, as soon as he becomes sick.

Q. Unless he becomes sick? A. Unless he becomes sick.

Q. Then you have him examined to see if he is entitled to any benefits? A. Yes.

Q. What investigation or examination do you make while the man is working — anything at all? A. Well, we, of course, see that he is in — the hours of labor are kept up, our rules and regulations kept up, and he is clean, and proper, and that the nine-hour work-day is in force.

Q. Do you examine at all to see if the working place is cleanly? A. Oh, yes.

Q. What do you do about that? A. If they are not kept clean we report it.

Q. Who makes your investigations? A. The officers of the organization.

Q. They are working bakers, aren't they? A. Well, some of them, they are not working in the bakeries.

Q. What do they do? A. They are secretaries of the office, and keep the office, clerks, and so on.

Q. And receive salaries? A. Yes.

Q. Do they make inspections — these secretaries — is that the only way? A. As soon as they get reports of unsanitary conditions in bakeries, they will report it to headquarters.

Q. What suggestions have you to make to the Commissioners about what conditions ought to be improved and how they can be improved? A. In the city of New York, or throughout the state, or throughout the United States, there ought to be no more cellar bakeries built.

Q. No more cellar bakeries? A. No more cellar bakeries should be built. That will do away in the future or eliminate the cellar bakeries in the state entirely. As long as cellar bakeries are in existence or are built new, filth in bakeries will exist. If I can go back to the time I started in and organized for the purpose, just to better the condition, not alone of bakeries, but also for the welfare of the public in general in 1885, there was the filthiest condition in the bakery industry in this city of New York — filthier than in any other part of the world, I found out. I believe there are some bakeries like them in the State of Connecticut to-day, where the Cellar Bakeries law has been passed that no more can be built, and cannot open again if they are closed, and there are very few. I just came from the State of Connecticut, and we find very few cellar bakeries there, and the men are in a healthier

and brighter condition than those who work in cellar bakeries. Everbody can imagine — I worked 28 years in a bakery myself — how a man feels after he has worked sixteen or seventeen hours, as has been before the organization was in existence, or union shops existed in the city of New York. The conditions were so that men had no moral feeling whatsoever. He did not have anything left for himself, nor for the welfare of others, therefore, I think the best thing to do would be to do away with the cellar bakeries. Since the organization has been in existence we have tried our best to abolish the filthy shops. They are not as filthy as they have been. Of course, the light, and the night work, especially the night work, is detrimental to the health of the bakery worker. In many instances in the bakeshop, not alone night work, but many other matters should be abolished, and should be done away with. For instance, the sifting of ashes. Now, everybody knows, and especially the doctors who are here, that the cinders affect the lungs, and bring about consumption. There is not alone the removal, but the ashes should not be sifted in the bakery. For instance, the heat and ventilation. Those questions all could be remedied by having experts who understand something about it. The heat in the shop goes as high in the summertime as 100 to 115 degrees where the men have to work. Everybody knows that his digestive organs will relax from such a heat, that the food cannot be digested. Therefore, the bakery workers are looking haggard, and are becoming consumptive. The enemy of consumption is the digestion of pure food, to send pure blood to the lungs. Such evils, of course, under the present system of inspection are impossible to prevent. There is not enough allowance in my estimation for inspection. The state has it in hand, and really in some ways they have done pretty well. I don't think that the city could do better under the present system, but I think it would be worth while for the welfare of the public in general if they would know what they eat, and to have a Commission, you might say, throughout the United States. The conditions exist everywhere in the United States among the bakeries, and I believe that such a Commission, only for trial so as to assure the public what they eat, that they eat healthier and more wholesome bread, and an inspection of the products used in

the bakeries, which has been in the last years something fierce, something really unbelievable. Men with common sense are disgusted with the stuff you have got in place of eggs — cold-storage eggs, candled eggs, egg products — and milk powder, which in half an hour stinks so that you cannot stand it.

Q. Is there a State Food Commission now in this State? A. Yes. Well, of course, lately, in the last three years I have not worked in the bakery, and I hope they are not using the same substances, but I see they have done quite some work in that behalf, maybe they eliminate that stuff.

Mr. ELKUS: Mr. Chairman, what is the State Food Commission, for the record, if you can tell us.

The CHAIRMAN: There is not any. There is a Commission appointed this year to look into the question of the purity of the food and the price of food. That is a very general Commission. I do not know whether they have met yet or not. That was an enactment of this year.

Mr. ELKUS: The first time?

The CHAIRMAN: The first time. It is an investigating Commission.

Mr. ELKUS: Is that the one of which Mr. Osborn is chairman?

The CHAIRMAN: Yes.

Mr. ELKUS: I want to say to Mr. Iffland, for his information, that I remember that there was such a Commission appointed.

The WITNESS: I am glad to hear it. I would only like to say that it is stamped pure food, but I cannot understand how a child can digest that stuff. The digestive organs should be kept in order, and in such condition that it gets pure blood.

Q. Mr. Iffland, you were speaking of the kind of food or kind of material that was used when you were familiar with work in this city; what kind was used? A. Well, there were substances for eggs; there were substances for butter; substances for milk.

Q. What was used instead of eggs and butter and milk? A. Well, there was a kind of granulated egg — albumen, some powderized eggs.

Q. What is a granulated egg? A. It is more lime than anything else.

Q. It is a manufactured product? A. Manufactured stuff.

Q. What do they use instead of milk and butter? A. Powderized milk they call it.

Q. What is it, a chemical? A. A chemical, sir.

Q. What do they use instead of butter? A. Butterine.

Q. That is oleomargerine? A. Oleomargerine, yes.

Q. Is that common in all the bakeshops with which you were familiar? A. Yes; mostly all the bakeshops, they have used it. Of course, I don't want to make an exception, but I always protested against it, because I knew what it means.

The CHAIRMAN: There is no harm in oleomargerine?

The WITNESS: It does not give nourishment.

Q. Are the other things unhealthy? A. I think for a child, like cakes or pies or anything that that stuff is used in, it feeds the child but does not give nourishment or pure blood. I believe you understand that question, although I am not a physician, or as highly educated as some others.

Q. Is there anything further you want to suggest to the Commission? A. Of course, to have the elimination of the cellar shop and not have any new cellar shops built. There was a law in behalf of sifting cinders, which, of course, is detrimental to men working in the shops; and pure air, ventilation, as much as possible in the cellar shops. Of course, I must say that the cellar shops have, in some instances, been very clean shops, but, of course, in this night work by light — and then instructing the inspector — the building inspector, to have toilets in the bakeries. For instance, there are some bakeries on the West Side, I know; for instance, on 44th Street and Tenth Avenue — 44th Street and 46th Street, two bakeries — in one bakery they use a butter tub instead of a toilet.

Q. Where is that bakery? A. Tenth Avenue and 44th Street, Webber's bakery.

Q. Webber's bakery on Tenth Avenue? A. I do not know the number.

Q. Between 44th and 45th? A. Yes.

Q. On which side of the street? A. On the right-hand side going up.

Q. That is on the east side? A. East side.

Q. They use what? A. A butter tub or pail or something.

Q. Instead of a toilet? A. Yes, sir; right in the bakery.

Q. Right in the bakeshop? A. Yes, sir.

Q. How long ago was it that you found that out? A. Not long ago.

Q. A week? A. No; a few months ago. There was at 103rd Street and Third Avenue, near 103rd Street and Third Avenue, is a bakery, where there is no flooring whatsoever; just a dirt ground floor. Then, of course, I would like to say a word in behalf of the cement floor, concrete floor, and the work is very injurious to the men in the shop.

Q. Why? A. They generally get rheumatism, because they get damp, especially in the cellar; the dampness comes up, down in the floor, and, of course, in that behalf there is very little done, and there are quite some bakeries in the city of New York which have cement floors, and although there is a law and a statute which demands cement underneath and boards on top of them.

Q. There is such a statute? A. There is such a statute.

Q. You mean it is not enforced? A. In many bakeries it is not enforced.

Q. That is up to what Department to enforce it? A. The State.

Q. The Labor Department? A. The Labor Department of the State. There is one, I believe that belonged to the Fire Department, which I will mention, the cooking of crullers or cooking fat in a bakery, and in that respect if the fat starts to burn the men cannot get out, if there is no exit on one side of the shop, which in many instances happens. Then also the fat gets down in these cellars —

By Commissioner PHILLIPS:

Q. Have you got the statistics of your organization?

The WITNESS: Yes, we have them. I can give you the statistics.

Commissioner PHILLIPS: The Commission would like to have that very much.

The WITNESS: All right; I will have it for you. I will write to Chicago to our headquarters in that respect.

The CHAIRMAN: Were you ever in business yourself; you never conducted a bakery yourself?

The WITNESS: No, not a bakery.

The CHAIRMAN: I have been told for a number of years back, or until very recently, it was the custom in New York that a man in the egg business when he found his eggs became so bad he could not sell them to the ordinary customer, always found purchasers in the bakeries of New York.

The WITNESS: Sell them to the bakeries.

The CHAIRMAN: The rotten eggs?

The WITNESS: Spotted.

The CHAIRMAN: Rotten eggs?

The WITNESS: Spotted eggs and rotten eggs. They make no difference so long as they give a nice color. That is the condition; that is true.

The CHAIRMAN: You said something about night work which should be abolished. Under present conditions can that be done?

The WITNESS: Oh, yes; night work could be very well abolished because in very many cities we have not got night work. They

bake in the day time. In the State of Connecticut most of the baking is done in the day time.

The CHAIRMAN: There is no law?

The WITNESS: No. The organization enforced it. Of course, the night working, in behalf of morality, a man that works at night, on behalf of children and the family. Now, we had in 1885, 1884, we had thirty-two bakers married in the City of New York — thirty-two bakers married in the City of New York. Now, through the effort of the organization, better conditions have been established and most of the bakers to-day have homes.

By the CHAIRMAN:

Q. What is the advantage to the bakers of having it baked during the day? A. Well, so they could be with their family —

Q. You misunderstand me. It seems that most of the bakeries in New York now bake at night, don't they? A. Yes, sir.

Q. What is the advantage to the baker, who is the owner, to bake at night? A. There is actually an advantage so that in the morning he may have fresh stuff, but it gradually changes into more day work than anything else. Of course, the bake shops are very small, and there are two shifts working, and one must work at night, and one must work by day. They would have to have another shop to have men who work at night work in the day time. That is about the whole advantage there is.

Q. You mean in order to get as much work as he gets now by two shifts, he would have to have a shop twice as large? A. Yes, or have an extra shop for the night man.

Q. Are you acquainted with the law of Connecticut, which you say was passed in connection with bake shops? A. Yes, sir.

Q. And their location? A. The laws of Connecticut. If a cellar bakery is closed it cannot be opened.

Q. In the new buildings where did they locate their shops? A. Level ground.

Q. Right on the level ground? A. Right on the level, yes. In some cities, like Hartford, there is only one cellar bakery.

Q. Do they have a cellar underneath the bake shop? A. Yes, of course, according to the proprietor.

Q. I was wondering about the weight of the oven. A. There could be a cellar underneath a bake shop.

Mr. ELKUS: They have ovens in the bake shops here in the city above the ground floor even?

The WITNESS: Oh, yes.

Mr. ELKUS: The National Biscuit Company has a model bakery.

By Miss DREIER:

Q. You say you have nine hours a day in the union shops?

A. Yes.

Q. What are the hours for the non-union bake shops in the city of New York? How many are there, can you give us an idea?

A. Well, there are quite some bake shops where they work, even in factories — even more than nine, ten, eleven and twelve hours a day.

Q. Well, take it from the point of view of heat, is it bad for the workers to work so long? A. Oh, yes; because there are shops here in the city of New York yet to-day that we can't get hold of, that work about fifteen and sixteen hours. Now, those men working fifteen and sixteen hours a day in a bake shop, the men are actual physical wrecks and morally they are wrecks, too.

Q. Will you please tell me if the heat would be lessened by having the ovens open in the back, or built up, or something like that? A. Well, in some instances they have ovens fired from the back. Of course, that is pretty good; that would be a good idea; yes.

Q. It would be a good idea to have it generally? A. Yes.

Q. How much would it lessen the heat? A. Well, I couldn't tell you exactly how much it would lessen it, but it is a great relief for the men in the shop.

By Commissioner PHILLIPS:

Q. Are the conditions in the large shops better than in the small bakeries? A. In some instances, the large shops are worse than the small bakeries.

Q. That is as a general rule? A. As a general rule, the large shops are driven by machinery, and as I said before, if they would be controlled by the government, I think it would be of great interest to the public. I think it should be controlled by the government or by the city authorities — the bakeries should be controlled, as long as this goes on as it is.

Q. What shops have ovens fired from the rear? A. Well, I couldn't tell you; I couldn't go down there. There may be some shops that are fired from the rear, but I can't give them because they wouldn't let me come in, because they are not in the organization.

By Mr. ELKUS:

Q. You have been in them. You mean you have not worked in them? A. Well, I have been in them, but the factories wouldn't let me down. I imagine they don't want to see me.

By Commissioner PHILLIPS:

Q. What I was trying to find out is how the large bakeries compare with the smaller ones? A. Well, as I say, in some respects, they are worse than the small bakeries.

Q. In what respects? A. In the first place, the men are driven to work by machines,—as fast as the machines the men must work, and on the average the sanitary conditions are not much better, because of the heat in the large bakeries. In bakeries like Fleischman's and Hilderbrand's bakeries, in the summer time the conditions are worse because of the heat, because in some of the large bakeries there are fifteen and sixteen ovens where the stuff comes out, where the men are working, and it is something unbearable.

Q. What is the temperature? A. The temperature is always over one hundred — one hundred and ten, and very hot at one hundred and fifteen.

By Miss DREIER:

Q. Can you tell us anything about the ventilation of the bake shops in Germany? A. In Germany the best regulations are in

Austria. In Austria the men dassent even sit on a bench where the bread is moulded, for the boss is fined. The clothes are changed twice a week, and the proprietor sends the coats — the proprietor of the bake shop sends the coats out. The men have to change their clothes twice a week, and they get a towel every day. Also in Germany, in 1888, through the Reichstag, some regulations have been made which actually are the best at the present time. Now, in England the conditions in the bake shops are very good at present, too. I have been in the City of London, and at that time, in 1882 — I went over there to England, and also to Belgium, Holland, and I worked in all these places just to study the condition of the bake shops.

By Mr. ELKUS:

Q. What are the regulations in Germany that you speak of?

A. The cleanliness principally. There are no cellar bakeries, or anything of that kind. The men must go proper to work — clean — and work in clean clothes and have places where they wash themselves, have places where they hang their clothes, and everything is in a systematic way.

Q. In Germany and in Austria is there a medical examination of the bakers themselves from time to time? A. Not as far as I know.

Q. Do you favor that? A. Oh, yes; I favor that very much. I believe very much in that medical examination. I think that is a great idea that has been established by the state, because then you can find out the conditions that night working men is interested in, in the bakery shops.

Q. Have you anything further to suggest, Mr. Iffland? A. Well, I would like to see that the state takes the matter in hand, or the city of New York, and clean all the shops as soon as possible.

Q. I take it that you are very much in favor of the work of this Commission then? A. Well, I am in favor of it.

By the CHAIRMAN:

Q. Does your union organization take up the question of improvements in the shops? A. Well, I should say we have for the

last twenty-five years always brought the matter before the public, and the last three years especially. Miss Dreier was a member, and our president, and I believe she has visited about one hundred shops, with myself, and since that time we have done all we could, and I believe that is all brought about through the education of the organization also.

Q. Would it be possible for the bakers, the workers, to establish a standard, and refuse to work in a shop unless they live up to that standard? A. Well, you mean to the organization?

Q. Yes. A. Well, the organization at that time—we grant summonses where we find the conditions are bad, we will not let the men to work in it if we can possibly help it. We have always educated them against the impure food products which have been used. Of course, the men in some instances, report it to the organization, and we do all we can to improve it. All those instances where it is brought before the organization through the public, they want to know where they stand on behalf of the bakers.

Q. Of course, if you men were strong enough and refused to do any poisoning of the public, it would be a good thing? A. Yes. It is our aim, and has been our aim for years, to improve the conditions that exist in the bake shops, and I believe everybody knows that.

Mr. ELKUS: Mr. E. P. Boone.

E. P. BOONE, called as a witness and being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. What is your full name? A. Edward P. Boone.

Q. Mr. Boone, where do you live, and where is your place of business? A. I live on Staten Island, and my place of business is 123 William Street, New York City.

Q. What is your business? A. Superintendent of the Automatic Sprinkling Department of the New York Fire Insurance Exchange.

Q. Will you explain to the Commission what the New York Fire Insurance Exchange is? A. That is a body supported by the insurance companies to formulate and promulgate rules and rates governing insurance.

Q. To formulate rules for the guidance of the insurance companies? A. Yes.

Q. Is that all they do in the New York Fire Insurance Exchange? A. Rating of risks.

Q. And does that cover it? A. And licensing.

Q. Well, the New York Fire Insurance Exchange is the medium through which fire insurance companies act in unison? A. Yes.

Q. I didn't quite catch what you said your connection with the Exchange was? A. Superintendent of the Automatic Sprinkler Department.

Q. Tell us what that Department is. A. That Department has charge of rules and regulations for the installation of automatic sprinklers — drawing up of specifications — inspection of buildings, risks being equipped with automatic sprinklers, and rate of equipment, and the rating of risks under what is known as the restriction sprinkler schedule.

Q. Now, the New York Fire Insurance Exchange regulates the kind of sprinklers that are to be used in order that the insured may get a reduction of insurance because of the use of the sprinkler system? A. Yes. It has a list of all improved heads.

Q. There are certain sprinkler heads that the Fire Insurance Exchange approves of and only those, and if the insured uses one of those sprinkler heads, he may receive the reduction in the premiums of insurance? A. Yes, sir.

Q. And can you tell the Commission the percentage of reduction that is obtained by using the sprinkler head in a manufacturing establishment, we will say? A. Our method of granting the reduction for automatic sprinkler heads is by means of grading schedules. The maximum reduction under the system is 50 per cent.

Q. That is to say, the premiums of insurance are reduced one-half? A. Yes.

Q. By the introduction of an improved sprinkler system? A. Yes.

Q. Now, what has been your own experience as a sprinkler expert, Mr. Boone? How long have you been investigating and examining and improving sprinkler systems and studying the whole sprinkler system? A. Somewhat over twelve years.

Q. How long have sprinkler systems been in use in the city? A. The first installation in this city, I believe, was installed in 1882.

Q. And they have been very generally in use in the last ten years, have they? A. Yes.

Mr. ELKUS: Now, would the Commission like Mr. Boone to explain what an automatic sprinkler is; or are you all familiar with it?

The CHAIRMAN: I understand it. I think we all understand it.

Q. Are there any differences in the sprinkler systems of which you know, or are they all substantially the same? A. There is a difference between the wet pipe system and the dry pipe system.

Q. Explain the difference, please. A. The wet pipe system is where the water is in the pipes all the time at the sprinkler head; the dry pipe system, the pipes are filled with air, and under steam pressure, the water being held by an automatic valve.

Q. Well, the water is released in every case through the sprinkler head by the heat in the building, or wherever the sprinkler system is, rising to a certain degree? A. Yes.

Q. Which automatically causes the sprinkler head to break? A. Yes.

Q. Is the sprinkler head simply placed in the system of pipes, or placed where the metal is of a certain kind, and of such a texture that by reason of the degree of heat which is obtained, this metal melts, and the water comes through? A. The sprinkler head is a device in itself, screwed into the pipe, and with a metal cap; it is held back in place by solder, and the action of the heat fuses the solder and releases the cap, and the water is discharged.

Q. Outside of the differences between the dry and the wet pipes systems, are there any other differences between the different systems of sprinklers? A. There may be two sources of supply,

or one source of supply. Two sources of supply are always required for the standard sprinklers.

Q. What do you mean by two sources of supply? A. Two sources of supply as in the case of a pressure tank — one forming the primary and the other the secondary supply.

Q. How many sprinkler systems does your New York Fire Insurance Exchange approve? A. Two main systems. At the present time there are six sprinkler heads on the approved list.

Q. What are the names of them? A. The Estey Gibbons, International, Manufacturers, the Neracher and the Rockwood.

Q. Who are the manufacturers of these six systems? A. S. S. Vogel & Company, manufacture Estey heads; the International Sprinkler Company, the International Sprinkler; the Manufacturers, the Automatic Sprinkler Company manufactures; the Hibbard, George I. Hibbard Company manufactures the Hibbard sprinkler, and the Rockwood Sprinkler Company the Rockwood sprinkler, and General Fire Extinguisher Company manufactures the Neracher sprinkler.

Q. How many sprinkler system do you know of besides these six? A. There are some dozen or fifteen — say fifteen.

Q. Who passes upon the sprinkler systems which are approved by your Exchange? A. The department of which I am superintendent.

Q. And then you do it, as I understand it, practically — you or anybody else, Mr. Boone? A. Inspectors in my department.

Q. How many inspectors have you? A. Six.

Q. Well, have they decided that these six systems are the only ones that you would approve of, or did you decide that yourself? A. We decide whether the equipment has been installed in accordance with our rules and regulations, and so grade it.

Q. But you only approve of these systems? A. Only.

Q. And besides that you examine to see if the systems are properly installed? A. Yes.

Q. What I want to find out, is who picked out these six systems, who selected them? A. These sprinklers that I have mentioned were decided on and examined by the Underwriters in Chicago.

Q. Do they apply to the whole United States or only to New York City? A. They apply to all the United States.

Q. So these six concerns have a monopoly of the business in the United States? A. The only companies that manufacture sprinklers in the laboratory.

Q. I don't mean to use the word in any invidious sense, but that practically gives them a monopoly of the business, because all men practically who use sprinkler systems have insurance, and, of course, they want to get the benefit of the reduction of premiums, and if they do, they must use one of these six systems; is that correct? A. Yes, sir. We have several old style equipments here in the city, for which a nominal grading is given.

Q. That is, they get a nominal reduction? A. Yes,—which amounts to nothing, practically—from ten to twenty per cent.

Q. Now, it has been stated here by one of the Chiefs of the Fire Department that any plumber could make a proper sprinkler system—any competent plumber. Is that correct? A. Could install a sprinkler?

Q. No, could create one—build it. A. I doubt it very much.

Q. He stated here before the Commission that a sprinkler head was a thing that could be manufactured by any competent plumber. A. I doubt it.

Q. Why do you doubt it, Mr. Boone? A. A sprinkler head is a mechanical device which must be constructed along mechanical lines. It must be an adequately equipped shop that can build such a head; it must be a proper shop with testing apparatus and facilities to turn out a device which when installed can be relied upon.

Q. Well, when the sprinkler system is installed in every building before you give a man a rebate or fix a rate of insurance for that building, dependent upon the system, you have a test of the system made, don't you? A. We do.

Q. That is to say, you heat the building up to the requisite degree of heat to melt the solder which holds the sprinkler heads in place, and see if the water flows at that time? A. We do not go that far.

Q. Well, how far do you go? A. We make a test of the pipe system, its required pressure, and its flow of water. Fusing is entirely unnecessary to this sprinkler head, for we know what the sprinkler head can do.

Q. Have you heard, Mr. Boone, that there is an arrangement between the six concerns with reference to prices for sprinkler systems? A. I have heard something with reference to it.

Q. What have you heard with reference to it? A. That there was a combination on foot.

Q. What kind of a combination? A. As to the control of certain types of sprinklers.

Q. Well, what did you hear about it? A. That one of the companies had taken over a certain type of sprinkler.

Q. Which company? A. The company that now owns the Automatic Sprinkler Company of America.

Q. That they had taken over what? A. Certain of one or other types of sprinkler.

Q. Which type do you refer to? A. The International.

Q. And with the taking it acquired the International? A. Yes, sir.

Q. And at the taking acquired all the others too, or the controlling interest in them? A. No, sir.

Q. How many did the Automatic own, though,—about half of them? A. No, sir,—the Manufacturers' Sprinkler Company, and one of the western sprinklers.

Q. Well, that would give them a third of the business? A. Yes.

Q. Have you heard that besides that there was a combination—I think you used the word “combination”—have you heard there was a combination between all of the companies that manufactured these sprinklers? A. No, sir.

Q. Hasn't there been complaint made to you that the companies had some agreement by which prices were maintained? A. I have heard such complaints.

Q. How many complaints have you heard to that effect? A. Very few. Now and then we hear one.

Q. Have you ever investigated to see if it was true? A. No, sir.

Q. Wasn't that a subject in which your Exchange was interested? A. The way the complaints came didn't seem to warrant any investigation on our part.

Q. How did they come? A. Verbally.

Q. Then, some one came to you and told you that there was such a combination? A. Yes, sir.

Q. Is that it? A. I couldn't say it was; they simply thought.

Q. And because they were verbal you didn't pay any attention to them? A. No, sir.

Q. Now, isn't it a fact, Mr. Boone, that the prices charged by these concerns who manufacture these sprinkler systems are about the same? A. Very nearly.

Q. And isn't it a fact that if a man intends to put in a sprinkler system, and applies to any one or more of the six concerns, that if he has applied to one, he can't get any bids from the others? A. No, it is not a fact.

Q. Or if other bids are made they are very high,—if he applies to five of the concerns in order, taking the first first and the other four afterwards, that the first bidder is the lowest one and all the others are higher? A. That has not been my experience.

Q. And isn't that done by arrangement between the companies? A. That has not been my experience.

Q. That has not been your experience? A. No, sir.

Q. Do you favor the installation, from your experience, of the sprinkler system in manufacturing establishments? A. I do; yes, sir, under certain rules and regulations.

Q. What rules and regulations? A. I should say, rules formulated along the lines of the Underwriters' rules.

Q. What are they? A. They are compulsory, compulsory installations that can be depended upon.

Q. You mean a proper installation? A. Yes.

Q. It is assumed that you refer to a proper installation. An improper one would not be of any use to anybody. But in all the cases do you believe, or recommend, that an owner should be compelled, or some one should be compelled, to install a sprinkler system in a manufacturing establishment? A. Certain classes of tenement manufacturing risks, tenement risks and risks of a large area, and great height.

Q. Well, let us take an ordinary loft building, such as exists in New York city, with which you are familiar. Do you favor a compulsory installation of a sprinkler system in such a building above a certain height, and if so, above what height? A. I should be in favor of compulsory installation when the equipment is properly installed in buildings of five stories or over in height.

Q. Five stories or over. That is in every story above the fifth story, or including the fifth,—in the entire building, every floor?

A. Yes.

Q. If a building is five stories or more in height, and used for manufacturing purposes? A. Yes.

Q. Why do you recommend a requirement of that kind as being compulsory? What is your reason for it? A. Sometimes sprinklers are kept in the upper stories of the building.

Q. Do you believe a sprinkler system would save life as well as property? We are not so much interested in property as we are in life. A. I do.

Q. Well, tell us the reason. A. Because the fire does not have an opportunity to gain headway; it is either checked in its incipency or immediately extinguished.

Q. A sprinkler system does not operate usually until a certain degree of temperature is obtained? A. The fusible metal employed on the sprinkler fuses at 165 or 155 degrees Fahrenheit.

Q. Suppose we have a fire in a loft building where a number of employees were employed on the floor where the fire was. If there was a sprinkler system there, from your experience, could you say whether or not the sprinkler system would operate before the employees would be burned or hurt or killed? A. I should say that the sprinkler system would allay any panic which might start.

Q. It would? A. Yes, sir.

Q. Well, then, take the case of this Triangle Waist Company fire with which you are familiar, no doubt? A. Yes.

Q. Is it your opinion that if there had been a sprinkler system in that building the loss of life would have been all or partly prevented? A. I think if there had been a properly installed and properly maintained sprinkler system in the building there would have been no loss of life.

Q. You are familiar with the cost of sprinkler systems, are you? A. Yes, sir.

Q. How much would it cost to install a sprinkler system in that Triangle Waist Company building? A. I should say an expenditure of \$11,000 to \$12,000.

Q. How long do the sprinkler systems last, Mr. Boone?

A. The entire equipment?

Q. Yes. A. The wooden tanks last on an average of six years, the remaining portion of the equipment would last almost indefinitely unless there is some corrosion, fifteen years I should say. The equipment as a whole would average up, I should say twelve years.

Q. An expense of \$11,000 covering a period of twelve years on the average would have saved in that case the lives of one hundred and forty-seven people,—in your opinion? A. I am firmly of that opinion.

Q. Is that one of the reasons why you recommend that it should be compulsory to install sprinkler systems in every factory building above a certain height? A. One of them.

Q. In New York city we have buildings, loft buildings used for manufacturing purposes that are of varying sizes, 25 by 80 feet, 50 by 80 and 75 by 80, and they run 8 to 12 and 15 stories, is that right? A. That is on the average; yes, sir.

Q. Can you tell the Commission the cost of installing a sprinkler system properly in those different sizes of buildings? A. In the first building, if it is what is known as open joists construction, it would cost probably \$3,000, \$3,500, that is the complete installation, where we would give a grade of say 50 per cent. On the second building it would cost about \$7,500, if that is 50 by 80, and on the other building 75 by 80, 15 stories high, fireproof construction, I would estimate about \$11,000.

Q. And that is using the system of one of those six companies, one of those six systems which you referred to? A. An approved system.

Q. Are the other systems much cheaper? A. I presume so. We have not installed them.

Q. Mr. Boone, what saving of insurance would there be in premiums each year on the building itself, on the various size buildings with sprinkler systems installed? A. The maximum reduction would be fifty per cent for the standard system. There is a schedule which applies to high-grade risks which would admit of a still more marked reduction.

Q. And what is that? A. Reduce it from 75 to 80 per cent.

Q. That is reduce it by 75 or 80 per cent? A. Yes.

Q. Now take an ordinary 25 by 80 building, say 12 stories high. That is a fair average building, a loft building. That would be insured, the building itself, about how much? A. According to the occupancy, it would range anywhere —

Q. Give me an average figure. A. 30 to 35 cents without sprinklers.

Q. And on what valuation? A. The valuation might run as high as \$150,000 up.

Q. Supposing we take the lowest figure, \$150,000, that is low, and at 35 cents, that would mean how much premium per annum? A. That is 35 cents per \$100.

Q. That would be about \$500 a year, is that right, for the premiums? A. \$500 a year.

Q. That would be low, would it not? A. Yes.

Q. So, if you installed a sprinkler system that would reduce that one-half to about \$250? A. Yes.

Q. Now take the contents of that building, the merchandise belonging to the various tenants. What would be the rate on a non-sprinkler building? A. That would be possibly as high as \$2.25 a hundred.

Q. \$2.25 a hundred? A. Yes, sir.

Q. Would that be reduced one-half by a sprinkler system also? A. It would.

Q. So that each tenant would save much more than the owner of the building? A. Yes, sir.

Q. Have you ever disapproved of the installation of sprinkler systems in New York City? A. Yes, sir.

Q. How many? A. Well, I have, I should say in the neighborhood of 90 or 100 equipments in the city for which we make no allowance in any way, either being partial equipments or due to the fact that they are below standard.

Q. Not one of those six systems that you named? A. They may be one of those.

Q. Will you tell the Commissioners what the fire losses have been where there have been sprinkler systems since your connection with the Exchange? A. The number of fires occurring in

sprinklered risks in this city, would run from 40 to 60 a year. The average number of sprinklers opened by fire per year in five years — five sprinklers per fire. The greatest number of sprinkler heads opened in any one fire in this city being fifty, due to the condition of the premises.

Commissioner PHILLIPS: That is they put the fire out before it reached them.

The WITNESS: They held the fire in check.

Commissioner PHILLIPS: So that it did not reach the other heads?

The WITNESS: Yes.

Q. Can you give the Commissioners some comparison between fires where there were no sprinkler systems and where there were?

A. The Triangle Waist Company fire is one.

Q. How much was the loss of property there? A. I do not recall just now. We had a fire shortly afterwards on Broadway where there were two sprinkler heads operated. It happened to be a night fire though, but the fire was practically extinguished. That occurs nearly every week or ten days.

Q. Has there been any loss of life in factory buildings where there has been a sprinkler system, by a fire? A. Not to my knowledge since I have been connected with the Exchange.

Q. You never heard of a loss of life where there was a sprinkler system installed? A. No.

Q. Have any of the systems ever failed to work? A. There have been failures reported, yes, sir.

Q. In many cases? A. Very few.

Q. Well, it is your opinion, Mr. Boone, that a sprinkler system will almost invariably save life in a fire? A. It is, if the system is properly installed and maintained.

Q. Of course, assuming that. We are assuming that all along. Then you would recommend legislation to the effect that a sprinkler system properly installed should be compulsory in every man-

ufacturing building of over five stories in height? A. Based on proper requirements.

Q. Of course. Now, from time to time damage by water is caused by the sprinkler systems working when there is no fire, is it not? A. Occasionally, due to lax management.

Q. And that is covered by what you call sprinkler insurance? A. Sprinkler leakage.

Commissioner PHILLIPS: How much does that affect the reduction?

The WITNESS: That is a separate matter.

Commissioner PHILLIPS: You would have to deduct that from the 50 per cent?

The WITNESS: No, sir.

Commissioner PHILLIPS: Now, in order to find out how much in his insurance he saves, you would have to find out what proportion of that 50 per cent that is?

The WITNESS: The rates vary according to the susceptibility of the stock and the type of equipment.

By Mr. ELKUS:

Q. Are there any manufacturing establishments or businesses in which you would recommend the installation of sprinklers irrespective of the height of the building? A. A business or manufacturing establishment?

Q. If so, what? A. The department stores, a building where a large number of people are likely to congregate. Risks or buildings where they have certain occupancies in certain localities and of certain types of construction.

Q. Now, suppose it became a fact that four or five companies, I think four companies now, were in an agreement to keep a uniform price,—to keep up the prices of sprinklers, would your Exchange take any action with reference to it? A. That would be a matter for the governing body.

Q. Are any of the fire insurance companies interested in marketing sprinkler systems? A. Not to my knowledge.

Q. And are any of the directors or officers of the company interested in any of the sprinkler systems? A. Not to my knowledge.

Q. You would not know whether they were or not, would you? A. No.

Q. Are you familiar with the fire-alarm systems, or is not that in your province? A. That does not come directly under me, only so far as they are connected with automatic sprinklers.

Q. How are they connected with that? A. Central stationary connections.

Q. Explain that to the Commission, if you please? A. By the operation of the system when there is a fire, there is an alarm transmitted over electric circuits to the central station.

Q. That is an automatic system? A. Yes.

Mr. ELKUS: Is there anything that you would like to state to the Commission, any recommendations or suggestions?

The WITNESS: No.

By Commissioner DREIER:

Q. What is the effect on the occupant of the room if it takes 200 degrees to operate the sprinkler? A. That heat is on the ceiling, not necessarily down below. The sprinkler being on the ceiling, of course, is affected.

Q. You do not think there would be any injury to the occupant from that heat? A. A very remote chance of it.

By the CHAIRMAN:

Q. Supposing an automatic sprinkler were installed in a building without consulting you, and afterwards application was made to you for fire insurance and you discovered — no doubt, that would be submitted to you — and you discovered that the sprinkler was installed by a company that was not approved by the Underwriters. Do you go to the trouble of testing to see whether the

sprinklers installed are as good as those approved, or do you, from the mere fact that it is not one of the six systems that you have approved, refuse to give any reduction on account of the presence of the sprinklers? A. If the equipment has been installed we would make our customary inspection, and if we observed that it was a system, a type not approved, we would not grant any reduction.

Q. Do you, at once, when you ascertain it is not one of the six systems, refuse to give any reduction, or do you give the owner an opportunity to test it for you, to show you that it is as good as that of one of the six? A. We grant no reduction.

Q. Simply from the mere fact that it is not one of the six? A. It has not been tested out, no, sir.

Q. I just asked you, do you test it out? A. I mean tested out, examined by the Underwriters' Laboratory for the Exchange.

Mr. ELKUS: He means that the sprinkler had not been tested by the concern in Chicago.

The CHAIRMAN: No matter how good it might be?

The WITNESS: If it is not approved.

The CHAIRMAN: So that a company in order to get any benefit out of its automatic sprinklers has got to go to the Fire Underwriters and get its approval, or else it might as well get out of business?

The WITNESS: It has got to have its approval, yes.

Commissioner PHILLIPS: What is the matter with the other systems,—the ones that are not approved?

The WITNESS: Most of them are obsolete, off the market. Some of them have been tried out and were found to be full of defects.

Mr. ELKUS: They become obsolete because there was no use of manufacturing them.

The WITNESS: Not necessarily so; they have been improved.

Commissioner PHILLIPS: The heads are all patented, I suppose?

The WITNESS: Yes, sir.

Commissioner PHILLIPS: And are some of the improvements of the six on some of the obsolete ones?

The WITNESS: They may employ an entirely new principle.

The CHAIRMAN: Some of these companies can get their reduction in the Mutuels, cannot they?

The WITNESS: Their list is practically the same as ours, of approved devices.

The CHAIRMAN: Exactly the same?

The WITNESS: Practically the same, as far as I know.

By Mr. ELKUS:

Q. Well, there are some companies that are not in the New York Fire Exchange, are there not? A. There are.

Q. How many are there? A. I could not say offhand.

Q. Those companies that are not in the Exchange, they are not bound, of course, by your rules as to sprinkler systems. They use any system they please? A. They may.

Q. It was stated here by one of the chiefs of the Fire Department that any competent plumber could manufacture a sprinkler system and at much less expense than that charged by the sprinkler concern. Do you know anything about that; can you tell us whether that is true or not? A. By employing inferior devices and material, and putting up the work in any sort of manner it might be possible to do that, probably would be.

Mr. ELKUS: Any further question, gentlemen?

By Commissioner HAMILTON:

Q. I merely want to ask if any other sprinkler system than those six have been brought before the Board in Chicago? A. Certainly, yes.

Q. And have they been tried to your knowledge? A. Yes, sir, there are heads coming before the Laboratory constantly. As a matter of fact, I have one on my desk that was only submitted the other day.

Q. How long have these six kinds been the only ones approved; how long since the last one was approved of the six? A. Three years.

Q. During that three years, although there have been a great many applications, no other has been approved? A. None has been approved as yet.

Mr. ELKUS: We have received complaints that this combination has existed for about three years. Is that the same time during which you have received complaints? A. No, the date, I should say, dated back four years. Simply verbal, sir.

(Witness excused.)

WILLIS O. ROBB, a witness, being first duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Where do you live and where is your office? A. I live at Richmond Hill, Long Island. My office is at 123 William Street.

Q. You are the manager, I think, of the New York Board of Fire Underwriters? A. Not at all; I am manager of the New York Fire Insurance Exchange — a different body of the same general membership.

Q. And how long have you been its manager? A. Only about a year and a half.

Q. And before that what was your position? A. For about eight years I was head of the Loss and Adjustment Bureau of the New York Board of Fire Underwriters; previous to that I was in charge of the loss department of a fire insurance company; previous to that I was agent and adjuster of another fire insurance company.

Q. Will you explain what the Board of Fire Underwriters is? A. The Board of Fire Underwriters is that New York City

organization of companies which deals with the supervision of buildings for fire protection purposes, and of the deduction of an independent rate, which it places on all electrical equipment, and it issues certificates when it finds that they are worthy of approval. It controls and maintains the fire patrol service of the city, and operates the bureau of adjustment of losses.

Q. What are your duties with the New York Fire Insurance Exchange? A. That is primarily an organization for the inspection of risks, and for the purpose of making rates thereon, and for the promulgation of the rates made on such inspections. Incidentally it took over, some six or eight years ago, the work of making specifications for an inspection of automatic sprinkler equipment, the work previously done by the New York Board, and it also maintains a Brokers' Certificate Bureau.

Q. Which of the bodies have to do with fire prevention, and the methods of fire prevention, and appliances for that purpose?

A. The New York Board has more to do with that than the Exchange barring only automatic sprinkler equipments. Our business is fixing the rate on conditions as we find them.

Q. That incidentally takes in fire prevention, I suppose? A. Surely. Our rates penalize bad conditions and make allowance for good conditions.

Q. Do either of the organizations have to do with the safety of human life in buildings? A. Not directly. Only as that is involved in the fire hazard.

Q. That is to say it is incidentally involved in the fire hazard. You do not have to do with the protection of human life otherwise?

A. Our rates take account of the merits of construction, and the defects of construction and equipment from the point of view of the fire hazard, necessarily. The safety of life is involved in that, even in such details as the fire-escape. In one of our schedules a trifling allowance was made for the presence of a fire-escape.

Q. What elements enter into fixing the rates of fire insurance? A. There are six or eight categories, and there are seven or eight elements to each. Well, the main questions are construction, protection, occupancy and exposure. Each one of these involves, at least, two kinds of hazard to the underwriters, inflammability and susceptibility.

Q. We are interested here very much in factory buildings, that is, buildings that are used for factory purposes. Now, as I am informed, there are two classes of such buildings; that is buildings especially built for factory purposes, and which are used either solely by one concern, or by several, and the ordinary so-called loft building. I take it that you are familiar with both classes of buildings. Now, taking up the question of loft buildings, will you give some facts to the Commission from your knowledge and experience as to the growth of these buildings and their use for factory purposes? A. Well, the chief development in the loft building of late years has been in the so-called fireproof building, which will run to an average of twelve stories in height. Now, fireproof loft buildings in which manufacturing is done are to a large extent buildings originally intended for other than manufacturing use, primarily for stock and the display room. The direction of the manufacturing growth is irregular. It is growing in two different directions. On the one hand there is the movement towards the suburbs, where lower and modern, substantially built buildings in ample space can be had, or to the specially built fireproof manufacturing buildings, for instance, in South Brooklyn, where every modern facility and form of fire prevention is found, even though there is no great open space around them. On the other hand, there is the spreading out into the loft buildings from the smaller old style inside store and dwelling building, the sweat shop building. In the main, that is a move towards fireproof construction, from non-fireproof construction, but it is a move away from the earth and up into the air, so far as concerns the average height of the worker. Perhaps the occupant of the loft building now is at an average height of from five to seven stories above ground, quite that, I fancy, and he has got up, because it is fireproof, because there was good light available at that height, and comparatively moderate rent. I suppose that so long as the East Side is the East Side, and furnishes an immense reservoir of the cheapest kind of labor, very much of the manufacturing in New York will remain in the congested part of New York, and not go to the suburbs. It must be dealt with from that point of view. That is especially true of the garment workers' industry, which is the

largest single manufacturing industry there is in New York, and represents, perhaps, fifteen per cent of the output of all manufacturing done in New York. It is in itself the greatest in the market of the city. It cannot be driven away; it ought not to be driven away, it cannot be bodily transferred to the ample spaces in the suburbs. It must be dealt with where it is. It should be allowed to live and thrive, if possible, but new conditions of protection must be adopted for the changed conditions.

It is probable that so far as concerns the hazard to life, and so far as concerns the fire hazard to the contents, the moving into the upper floor of fireproof loft buildings from a lower floor non-fireproof building has involved some increase rather than decrease in the hazard. That is recognized in the rates that the insurance companies make. Take, for example, the rate in the instance that you have specified, in the fire of last spring, the rate on the contents of the floors occupied by Harris and Blanck, or the Triangle Wast Company, was five times the rate on the building. That is a pretty good type of construction — the building itself, so far as the construction is concerned; cutting off of the second floor was the defect. The rate thus obtained is quite as high as on many a non-fireproof risk of its tenants on the second or third floor. We assume that a large area fireproof building is not an unusually well protected fire hazard, both because of the area and inflammable character of the contents, and the distance above the ground and the difficulty of reaching it by the Fire Department. One floor is likely to burn out under ordinary conditions just as if there had been no fireproof building, but if the floors are properly separated a fire will not spread ordinarily from the lower floors. On that floor the risk is nevertheless very great unless it is held in check by very efficient protection.

By Commissioner PHILLIPS:

Q. Speaking of East Side labor. You said you could not move that. Do not you suppose they could do that better up-State. That ought not to be driven out? A. I did not say the labor should not be driven out. I said the industry should not be driven

out. I said the industry which depends on that labor should not be driven away while that labor is there.

Q. The point I had in mind was that the garment workers down here, young girls making garments here, only about thirty per cent of them get more than six dollars a week, while in Rochester over fifty per cent get more than six dollars a week. A. You could not induce them to go to Rochester for three times as much, but I do not know why.

Q. Possibly it takes more skill to do the work there? A. No, it is the lure of the city. That is a dominant influence.

The CHAIRMAN: The Chair, on behalf of the Commission, desires to state that the Commission will have hearings throughout this week in the Aldermanic Chamber, beginning at ten o'clock A. M. and that the Commission will go to Buffalo on next Sunday, November 22nd, leaving New York city at 1 P. M. and a public hearing will be held in the city of Buffalo on Monday and Tuesday, November 27th and 28th. A hearing will be held in the city of Rochester on Wednesday, November 29th, and Thursday, November 30th. A hearing will be held in the city of Syracuse on Friday, December 1st, and in the city of Troy on Saturday, December 2nd, and then the Commission will return to the city of New York.

Adjourned to Wednesday, November 15th, 1911, at 10 A. M.

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**MINUTES OF THE HEARING OF THE NEW YORK
STATE FACTORY INVESTIGATING COMMIS-
SION, HELD IN THE CITY HALL
AT 2.30 P. M.**

NEW YORK, November 15, 1911.

Present — HON. ROBERT WAGNER, *Chairman.*

HON. CHARLES H. HAMILTON, *Senator.*

HON. A. E. SMITH, *Assemblyman,*

HON. C. W. PHILLIPS, *Assemblyman,*

MISS MARY E. DREIER,
Commission.

Appearances:

ABRAHAM L. ELKUS, Esq., *Counsel to the Commission.*

BERNARD L. SHIENTAG, Esq., *of Counsel.*

The CHAIRMAN: The Commission will come to order.

Mr. ELKUS: Commissioner Fosdick.

RAYMOND B. FOSDICK, called as a witness and, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Mr. Fosdick, what is your position in the city government?

A. Commissioner of Accounts.

Q. How long have you been Commissioner of Accounts? A. About two years.

Q. And is it part of your duty as Commissioner of Accounts to investigate certain of the Departments of the city? A. It is.

Q. And also to make investigations of conditions in certain businesses? A. Yes.

Q. I am informed that you made an investigation and reported with reference to the sanitary condition of bakeries in the city. Will you be kind enough to explain, if that is true, to the Commission, how it came within your duty to make such investigation, what was the purpose, what was its object? A. We were taking up the accounts and methods of the Department of Health, taking up particularly the Bureau of Food Inspection, and their functions, which had to do with the Sanitary Department of the Department of Health, and among the matters which we tested was the condition of bakeries in this town which comes not only within the jurisdiction of the Department of Health, but also of the State Department of Labor, and in testing those bakeries we made a series of inspection of the various conditions to determine the efficiency of the inspectorial force of the Department of Health, and the State Department of Labor; although of course, my jurisdiction does not extend to the State Department of Labor.

Q. In other words, the purpose of your investigation was to determine whether or not the inspection by the Health Department inspectors was efficient or not? A. It was, yes.

Q. And I understand that you passed upon the efficiency, without intending to do so, of the State inspectors? A. I did.

Q. That is correct? A. That is correct.

Q. Will you tell me who did the inspecting of the bakeries in the city of New York, and when it was done? A. Our inspection of the bakeries began about February 1st, 1911. We took up the work in connection, as far as our part of the work was concerned at least, with the representatives of the Consumers' League. We had had several complaints from the Consumers' League. Three or four of our inspectors went around with the representatives of the Consumers' League. We took up sanitary conditions of 145 bakeries selected at random, no particular location being chosen. I wanted to get the condition of the lower East Side, of the middle West Side and the middle East Side.

Q. You said three or four of your inspectors. How are your inspectors selected? A. Selected from the Civil Service.

Q. What do they receive? A. \$1,500 to \$1,800.

Q. Are they specially trained for the purpose of inspecting bakeries? A. Well, they are competent men in a good many lines.

Q. They are trained inspectors? A. They are trained inspectors.

Q. You don't have to train them specially to inspect any particular industry? A. We send out blank forms for the inspectors to fill out, that is as far as they could be filled out, to know just what the conditions in the bakeries were.

Q. Was any examination of the workingmen in the shops made? A. You mean a medical examination?

Q. Yes. A. No, not as far as I was concerned.

Q. Will you state the result of your investigation? A. You mean the conditions we found?

Q. The conditions you found. A. Of the 145 bakeries which we visited we found that most of them were in an unsanitary and exceedingly filthy condition. The result of our inspection shows that the ventilation, for instance, in three-fourths of the bakeries was entirely inadequate. I believe all, with the exception of three or four bakeries, were located in basements. In some basements, even the windows that existed were nailed up. In 25 per cent of the places which we inspected the sewer pipe ran through the mixing room, and wherever the pipe was located on the ceiling the moisture was dropping into the vats and utensils. We found food stuffs stored under leaky area-ways, and stored in close proximity with coal, coal bins and vaults. We found toilets located in some cases very near the bakery. In nine places the toilets were located so near the bakerooms as to be exceedingly offensive.

Q. What do you mean by that, the odor? A. Offensive as to odor, yes. In one place the toilet had an earthen floor, and was located in the bakeroom itself.

Q. Where was that, Commissioner, can you tell me the exact location? A. I think it was — I have it somewhere in my working papers, but it will take a few minutes to find it.

Q. Can anybody else find it for you while you proceed? A. Let me see — I don't see the assistant here. I will get it for you this afternoon.

Q. You can get it afterwards? A. Yes. The utensils, taking up that question, in most of the bakeries were found to be in very

unclean condition. In seventeen places the utensils were classified by my inspectors as being filthy to the point of nausea. One baker admitted he never cleaned his pans. In two places bakers were found asleep upon the mixing board. Animals were found in 33 1-3 per cent of the places we visited — cats, dogs, chickens and rabbits. In one bake room we found a dog with three puppies, seven in the litter originally, of which four died in the bake room.

In two other places there were chickens running about. We found that Section 113 of the Labor Law, which prohibits sleeping in bakeries, was violated quite generally. The sections of the Labor Law which are comprised within Section 102 with regard to conditions of bakeries along fire lines were generally violated.

Personal appearance of bakery employees, found to be generally dirty, very unclean in appearance. One baker, I remember the report came in, wore a red undershirt with the perspiration soaking through, and carried the dough from the vat, holding the mass close to his body, and carried it across the floor. I will say, in general, the facts we found were such that we might reasonably expect of bakeries located in basements.

Q. How many of these bakeries which you examined were located in basements? A. We examined 145. 135 were located in basements.

Q. Were these 145 selected at random, or was there any design in their selection? A. Selected at random.

Q. Where did you get the list from which to make the selection? A. We got the list from going along the street and seeing where the bakeries were.

Q. Did you make any personal investigation yourself? A. I went to five or six bakeries myself.

Q. I will ask you to give the Commission three or four concrete cases, give the numbers, but don't give any names. Just state those you saw yourself. A. It is difficult for me at this time to recall the exact bakeries which I visited. I spent one afternoon in just verifying the work of the inspectors.

Q. Yes. You can use the inspectors' reports. But I want to get those you verified. A. Bakery located at 125 Mott Street.

Q. Was that in a cellar or basement? A. That is a cellar bakery.

Q. In a tenement house? A. Tenement house. The front cellar on the right-hand side, there was some freshly baked bread. Under the shelf where the bread was located, there was a lot of old rubbish. Alongside the shelf was piled wood, kindling wood. Next to the kindling wood was a toilet.

Q. A what? A. A toilet was located.

Q. Right in the bakeshop? A. Yes, with a door between. There were also a lot of old tin cans which were piled up in a corner. Right alongside, near the door were some empty barrels and some flour bags. Alongside the flour bags was a sewer pipe. There were a lot of old clothes lying underneath the sewer pipe. The bread was baked in the back cellar, which was separated by a small door. As you entered the front door, I would call it, you came into the cellar, the front cellar, and then went to the back. On the right-hand side there was a sink. Near the sink was a shelf full of rubbish of various kinds. Alongside the shelf a couple of old pails were lying. Next to the pails a flour bin full of flour, and next to that a lot of loose coal. Alongside the coal, where the bread is baked, we found a lot of stuff, a lot of wood and rags and barrels, that is old rubbish that seemed to be stored in the bakery there.

We found two cats in this bakery.

I have a note here that the bakery seemed to contain an unusual amount of old rags. I don't know what purpose they served.

Q. Was that clean or dirty, that bakery? A. I should describe it as exceedingly dirty.

Q. Exceedingly dirty. And how many men were employed there? A. Two men.

Q. Were they clean or not? A. They were dirty.

Q. Did they use tobacco while they were working? A. We didn't take account of that thing in any particular bakery. The inspectors reported that in several bakeries they did notice that the bakers were using tobacco while working.

Q. Chewing or smoking? A. Chewing.

Q. Will you give us one other case, Commissioner, that you yourself have personally inspected? A. Yes. I have the whole

145 cases here in detail. There is a bakery located at 26 Prince Street, Manhattan.

Q. Yes. A. As you enter on the right-hand side of the cellar in which the bread is baked, in the cellar we found an old ice box. On the top of the box there were two cats lying asleep, also open boxes full of charcoal and a quantity of old rubbish, containing some old tools, saws, hammers, and so forth.

The flour bin was located in a box on a shelf over the rubbish. Adjoining the flour bin were a lot of empty boxes. On the other side near it, were a trunk, two soap boxes, two wooden boxes, a barrel, a lot of paper and old rags. Broken wood and broken bottles were found lying in a pile. A lot of ashes in the cellar, and a small stove used for cooking purposes, evidently cooking purposes for the family. The floor, concrete; side walls brick, and the ceiling cement. Very dirty condition.

A sewer pipe runs over the flour, near the oven where the bread is baked.

The only ventilation is through a small window over the oven, and the door also has an entrance into the cellar. No daylight at all in this cellar; gas must be used all the time. Two cats and a small dog going around, in addition to the two kittens we found first.

Q. That is four cats and a dog? A. Four cats and a dog. That is 26 Prince Street. The conditions, generally, were exceedingly dirty.

Q. Is that a cellar bakery? A. A cellar bakery. I am simply stating this somewhat in detail.

Q. I will ask you if you will tell the Commission whether the report of these 145 cases were made by your inspectors?

A. The reports in this schedule, which I will mark A, are reports of bakery inspections that we made in connection with the representatives of the Consumers' League.

Q. Yes. A. And the reports in this schedule, which I mark B, are reports made by our inspectors alone, without the representatives of the Consumers' League.

Q. Now, as the result of these inspections which you have made, what was the conclusion that you came to with reference to the inspection by the Board of Health and the State Department

of Labor? A. I came to the conclusion that there was practically no inspection at all.

Q. In other words, that the bakeries had been allowed to do as they pleased? A. Yes.

Q. Did you investigate to ascertain the cause? A. Yes. we did to a certain extent.

Q. What did you find? A. We found a rather peculiar condition as regards the law in the first place. The matter of supervision of bakeries comes within the jurisdiction specifically of the State Department of Labor, under Chapter 36 of the laws of 1909. At the same time there is a general section in the Charter, that is Section 1169, which gives the Board of Health general powers regarding the sanitary conditions in the city. Inasmuch as the specific jurisdiction in this case had been left by law to the State Department of Labor, the Department of Health was referring all complaints, and the results of inspections which had been made, to the State Department of Labor for action, because the law apparently conferred upon the State Department of Labor adequate jurisdiction in these cases. The city Department claimed it had not adequate jurisdiction to enforce the law.

Q. That was a case of duplication of authority in which, as each claimed the other could do it, neither did it? A. Neither did it.

Q. Now, have you stated the results of your investigations as as far as you want to go, or is there anything more you want to say, before I ask you for suggestions of what should be done to improve these conditions? A. I think I have covered it fully.

Q. Of course, the Tenement House Department has some jurisdiction? A. Yes, nominal.

Q. Did they do anything with reference to bakehouses which are in tenement houses? A. Complaints of that kind are referred to the Health Department, and after inspection they are referred by them to the State Department of Labor.

Q. What suggestions have you to make, Mr. Commissioner, to the Commission to remedy these conditions? A. I think in the first place, all bakeries should be licensed by the Department of Health. Before a bakery is allowed to operate in the city of New York it should be compelled to take out a license from the Department of Health.

In the second place, I believe that no cellar bakery should be allowed in the city of New York. Chicago has done away with her cellar bakeries, and I see no reason why cellar bakeries should be tolerated for a moment here. Most of the conditions which we found to exist could be directly traced to the fact that they were located in basements. There was no sunlight, no air, no adequate ventilation, and if New York could adopt some kind of a provision such as Chicago has already adopted, doing away with cellar bakeries, I think we would do away with 75 per cent of the conditions that exist.

In the third place, I think the Board of Health should adopt a standard sanitary requirement. The Board of Health under Chapter 1169 of the charter has full general power; they don't need any more law. They have ample power at the present time. They do need a sanitary standard, so that a baker will know just exactly what he has to do. The only reference to bakeries in the Sanitary Code is a reference in regard to products which are allowed to be exposed for sale. That is Section 46 of the Sanitary Code. There is only one reference in the code which has anything to do with bakeries, and that is an indirect reference, the one I just referred to. I believe we ought to incorporate in our Sanitary Code a set of standard requirements that show a baker just what he should do; just how high the ceiling shall be, for instance; just how far below the sidewalk level the floor of the bakery is allowed to go, and what should be the condition of the walls and ceiling.

I think, in the fourth place, that bakeries ought to be carefully and rigorously inspected by the Department of Health, both before and after a license is issued.

Q. How often? A. I think every bakery in the city ought to have a visit at least once a month.

Q. You believe that the working men should be inspected by medical experts or physicians? A. That is rather a drastic thing. I would not want to recommend that without considerable thought. I haven't given that any attention.

Q. Have you any other suggestion or recommendation as to inspection, if a license for bakeries is established, or anything of that kind? A. I think the Board of Health ought to have power

to close and seal any bakery which does not conform to its orders after 48 hours notice. The present law which confers jurisdiction upon the State Department of Labor apparently has had its teeth drawn. Section 115, which is the notice requiring alteration, fixes no penalty at all for non-compliance, and all the State Department of Labor can do is to order a thing done, and if a baker does not want to do it, he does not have to do it. There is no remedy.

Q. Hasn't the Board of Health power in such cases to compel compliance with their orders? A. Only as they have general powers, but I think it ought to be specifically stated.

Q. Do you believe that the Board of Health should have exclusive control of bakeries? A. Exclusive control, yes, sir.

Q. That would only apply to the city of New York. You see, the Commission's jurisdiction extends over cities of the first and second class in this State. We are expected to recommend remedial legislation for the whole State. Have you anything to suggest outside of the city? A. I haven't. I have only given the situation in the city any thought.

Q. Have you anything further to suggest to remedy the existing conditions with reference to bakeries? A. I think of nothing else. If power could be concentrated in the Department of Health there would be no question of conflicting authority.

Q. As to the question of funds. Has the Department of Health sufficient inspectors or funds to do this work? A. At the present time, they apparently have not. I don't think it would take the number of inspectors to do the work that has been generally estimated.

Q. How many do you think it would take? A. Why, apparently if they had ten good men on the job all the time they could handle the situation adequately.

Q. That would be between twelve and fifteen thousand dollars a year? A. Yes, twelve and fifteen thousand.

Q. What have you to say as to the importance to the public generally, of these investigations or inspections? A. Well, I think it is of the utmost importance to the public health, that these bakeries should be put in a sanitary condition, the utmost importance.

Q. Have you made any inspection of manufactures carried on in loft buildings? A. Yes, in connection with our investigation of the Bureau of Auxiliary Fire Appliances, in the Fire Department.

Q. Tell us how that came about? A. Early in the year 1911, Commissioner Waldo, who was then Commissioner of the Fire Department, asked me to take up the inspection of the Bureau of Combustibles, Bureau of Violations of the Fire Department.

Q. May I interrupt you? A. Yes.

Q. Go back to the bakeries. You stated that you believed in giving the Board of Health exclusive control over the inspection of bakeries, with reference to the enforcement of the sanitary regulations. Are you in favor of giving some very summary method of punishing the owner for violation of the Sanitary Code, and if so, what? A. You mean in connection with the bakery situation?

Q. Yes. A. I think if the Board of Health had power to seal a bakery within forty-eight hours' notice, that that would be adequate.

Q. Will you explain what you mean by that a little more fully? A. Under Section 114 of the law which confers jurisdiction upon the State Department of Labor in connection with bakeries, the power is given to seal a bakery in case the owner of a bakery does not comply with the order, but those orders don't have anything to do with alterations. That is, Section 115 is useless. If the Department of Health in the city of New York could have the same authority, that is, to seal up a bakery, put its official seal on it in case of non-compliance with orders——

Q. That is, close it up? A. Close it up.

Q. And to seal it, put a seal on the door, so it wouldn't be used? A. Absolutely. I think that would be all that is required.

Q. Go back, if you will, to your examination of loft buildings and manufactures? A. I was saying that we undertook this examination, beginning in the year 1911, at the request of Commissioner Waldo, then Fire Commissioner, who wanted us to take up particularly methods and operation of the Bureau of Violations and Auxiliary Fire Appliances.

Q. That is the Fire Department? A. That is the Fire Department. That has since been taken over by the Bureau of

Fire Prevention. At the same time, however, its functions will continue largely as they have before. This Bureau is charged in general with the function of seeing that all auxiliary fire appliances, whether required by law or departmental regulation, are in place in theatres, moving-picture shows, and buildings of every description in the city of New York. There are sixteen members of the Fire Department assigned to this particular work. We divided our investigation into three parts, taking up moving-picture shows; second, theatres, roof-gardens, etc.; third, loft buildings, and buildings used for manufacturing and commercial purposes.

Q. We are only interested in loft buildings. A. In connection with this examination we made a test of 78 loft buildings, selected at random by the Department, to determine the efficiency of the inspection force of the Bureau of Violations, in requiring the proper installation of necessary appliances. These appliances are not all required by law. As a matter of fact, there is very little law as far as the kind of appliances is concerned. It rests entirely with the discretion of the Fire Department.

Of 78 buildings which we inspected in Manhattan, 65 were found to be in need of sprinkler systems, axes and extinguishers.

Q. They are required by law? A. They are not required by law, they are required by Department regulations.

Q. Has that the force of the law? A. That has the force of the law.

The courts have held that the Fire Commissioner can enforce his orders in regard to the installation of automatic fire appliances.

The remaining thirteen buildings of the seventy-eight which we inspected were lacking in only a small part of the fire appliance equipment. The seventy-eight buildings which we inspected contained a total of 576 lofts, of which forty-eight were unoccupied.

I read from my report:

In 528 occupied lofts there were employed a total of 14,757 men and women, or an average of 28 persons to each loft.

One eighth floor loft was found containing 240 employees. Two other lofts in the same building, the sixth and ninth, had two hundred employees each.

In case of fire in this particular building there would be 623 persons escaping from lofts below the sixth floor, and seven hundred and sixty from the floors above.

Q. Tell us what that building was, and where it was? A. I can also give you that information later in the afternoon.

Q. Very well. A. While this building which we use for purposes of illustration is of modern construction, it has no axes, extinguishers or sprinkler system, and relies entirely on two 50-foot hose connections on each floor, together with a liberal supply of fire pails. It is used throughout for the manufacture of clothing. Smoking is allowed on all floors; benzine is used on two floors; motors are placed on bare wooden floors in two instances; most of the lofts are congested, and in seven of the eleven floors fire-escapes are obstructed. The schedule of the seventy-eight buildings which we inspected, and which I have here, is similar to the schedule which I gave you in regard to the bakery conditions.

I could go somewhat into detail in the matter if you wish.

Q. I would like to have you give us one or two concrete cases which you inspected yourself. A. I inspected five or six of those, to test the work of the inspectors.

Q. I would like you to give us some cases which you have personally inspected, one or two, giving the location, and what was found by you, in verifying the inspectors' reports. A. The building located at No. 20 West Houston Street, six stories, basement; sub-basement.

Q. An elevator-building? A. An elevator building. All the elevator doors and the hall doors open in. The fire-escapes, the fire-escape holders at the bottom are about fifteen feet from the ground. The hall doors throughout are wood except the fifth floor.

Q. When did you make this examination? A. This particular examination was made in March, 1911. The street entrance was kept locked when night work was going on. There were two iron ladders from the sixth floor to the roof. There was a motor in wooden boxes on two floors. Smoking was allowed in two of the lofts. Oils were carried in three of the lofts. The fire-escapes were obstructed on five of the lofts. There were no pails in the basement or on the first floor. On the other floors there

were from four to thirteen pails. No other appliances in the building. Sprinklers, axes, extinguishers and fire pails are all needed.

Q. Do you know whether or not since you made that inspection that the condition has been remedied in that particular building?

A. In that particular building I do not know.

Q. But do you know whether they have been in any of the others? A. I should say that the most of the buildings which were inspected at that time are in a similar condition now.

Q. A similar condition? A. Yes, there have been no changes.

Q. Have they been inspected, if you know, by any inspectors other than the one you spoke of? A. I do not know whether this list of buildings contains some that were inspected by the committee that was appointed as a result of the mass meeting.

Q. The Committee of Safety? A. The Committee of Safety.

Q. That is a voluntary committee. I mean by any of the inspectors of any of the city Departments or of the State Departments? A. My report in this matter was filed with the Mayor on November 10, 1911. If they have been inspected by a city Department, I think the inspection must have been made subsequent to November 10, 1911.

Q. Where did you get the list of buildings that you inspected? A. They were taken at random.

Q. You had no list — you just walked along the street and picked them out? A. Just walked along and picked them out.

Q. These were made by the same inspectors who inspected the bakery shops, I mean substantially the same? A. Yes, I have a force of twelve inspectors. I cannot say whether or not —

Q. Whether or not the same twelve men did the work, but some of them, some of the same men did this work? A. Yes.

Q. How long did you take to inspect the 140 buildings? A. The seventy-eight loft buildings — I cannot answer that offhand. I should have to look up the time sheets on that. It was easily done within a month. It was a fraction of a month; just what fraction I do not know. Shall I continue?

Q. Please, if you wish. A. The building at 121-125 East Broadway, seven floors, a dilapidated building. The entrance

doors and all the hall doors open in. There are winding stairs. The east fire-escape ends on a shed four feet wide where a ladder has been thrown up. It is buried under old shutters and so forth. That building is used for general manufacturing with two firms on each loft. The fourth loft is covered with piles of calico garments, it is evidently used as an abiding place for the family of the proprietor, as there are beds and a gas stove. Smoking is allowed in three of the other lofts. The fire exits were obstructed. The total number of employees is 158. There are no fire appliances of any kind in this building. Sprinklers, axes, extinguishers and pails are needed.

Q. Are you competent to express any opinion as to what would happen in that building in case of fire? A. I should hesitate to express an opinion on that point. I think what would happen is rather obvious.

Q. Now, with reference to those loft buildings that you have inspected, manufacturing loft buildings, have you any suggestions to make? A. Of course, we can hope and logically expect an improvement in these conditions through the establishment of the new Bureau of Fire Prevention. The trouble has been that the force of the old Bureau of Auxiliary Fire Appliances has not been sufficiently manned to take up the subject of those buildings. They had 16 men and that included the clerical force. They have not had an inspection force of sufficient size.

Q. Is there again in this particular case a duplication of authority? A. Some of the conditions which I have just cited are such as would come within the supervision of the Bureau of Buildings rather than the Bureau of Auxiliary Fire Appliances.

Q. How about the State Labor Department having jurisdiction of some of those cases? A. If the State Labor Department had jurisdiction, I did not know it.

Q. I think they have in some cases. A. I did not know it.

Q. They have with reference to the doors opening inward. A. There has been a very decided conflict as to the Bureau of Buildings and the Bureau of Fire Appliances.

Q. Well, it is quite evident that there is some conflict of authority and conflict of work with reference to all this work. What do you suggest with reference to this conflict; how can it

be remedied? A. I think that the new Hoey law provides for this matter with a fair degree of adequacy by giving to the Fire Department almost unlimited powers of correcting these conditions.

Q. In this city? A. In this city.

Q. Almost exclusive power? A. Almost exclusive power, I believe so, yes.

Q. It has been evident from testimony given by a great many witnesses here that there is not only a duplication of authority, but of supervision and inspection on behalf of every Department, both city and State; they make examinations of buildings for different purposes. All of them have as a basis for their reports certain facts and then after they have considered the facts many of which you have stated, for instance, in your report, they have reports as to certain conditions, violations of law, with reference to their own particular Department. So it has been suggested to the Commission that there should be established some independent Bureau or Department,—perhaps a separate body, or maybe connected with some of the present departments of the state or city, whose duty it would be to make inspections of all kinds of manufacturing business, ascertain the facts, and after those facts are ascertained by competent inspectors, then the inspectors, or their superiors in office ascertain what if any law has been violated, and report to the proper Department the facts and the violation of the law, and upon that report the Department should be authorized to proceed at once to correct the violation of the law, and if necessary to punish the violator. What have you to suggest with reference to that, what recommendation have you to make? A. I do not agree with that recommendation; I think we have Departments enough in the City of New York. I do not think we want to subdivide our functions any further. If the Fire Department is responsible for conditions of life in this town, the Fire Department ought to have the right to make the inspections.

Q. They would make the same inspection in greater part as the Health Department would, would they not? A. There might be some conflict there. I can conceive that.

Q. I do not mean as to conflict, but I mean as to doubling the work, doubling the work over and over again? A. You mean the

health inspectors and the fire inspectors and the tenement house inspectors go into the same building?

Q. They go into the same building and they begin in the same way and get the name of the proprietor and the number of people employed on each floor and the number of fire exits, and how many women there are, and how many children under 16 years of age and how many children under 18 years of age, and what kind of business is carried on, where the fire appliances are placed and where the exits are and whether the doors open inward or outward, and a great quantity of information, which it takes an inspector a good deal of time to write down on the various forms which are used by the various departments. The special information which any inspector gets for his own department would take a very short time, if he had only that to do. Why could not one inspector get all the information, general and special, just as your inspectors do now, when they inspect the bake shops, going over the work of the Health Department and inspecting manufactories and finding out what was known by the Fire Department? A. That might succeed. At first blush, I had not thought of it before. I had not thought of such a solution. I should say it would just be adding another Department, a further subdivision of the functions of the city government.

Q. But the duplication of reports, the duplication of authority, you would not have that? A. You will duplicate your cost of administration. You will have another plant to take care of, and the amount of money which you save through such an arrangement—I concede that you would save some, would all go out for the cost of maintaining your extra plant and the extra cost of administration.

Q. Would it not stop the constant shelving of responsibility from one Department on to another, whenever any kind of a catastrophe or disaster occurs, or a condition such as is now shown to exist in the bake shops? In other words, would it not be fixing the responsibility for a lack of inspection on some one Department, and not have a condition such as we have to-day, when, after the Commissioner of Accounts has inspected a bakery, the Department of Health comes forward and says they have not done it, because they thought the Department of Labor had done

it, and the Department of Labor had not done it, because they have not inspectors, and anyhow it is within the jurisdiction of the Health Department, and in the meantime the public suffers?

A. I do not think I would agree with you on that.

Q. I would be glad if you would give the matter some consideration, and if you will communicate with the Commission in writing about it any time before the 15th of December, I shall be obliged to you. A. I shall be very glad to do so.

By the CHAIRMAN:

Q. What is the nature of the law in regard to bakeries in the State of Illinois, or in the city of Chicago. Is it an ordinance or a State law? A. It is an ordinance.

Q. And you say that they have done away with cellar bakeries? A. Yes.

Q. Do you know, Commissioner, what the exact provision of the ordinance is with reference to the location? A. Section 18 of the Bakery Ordinance of the City of Chicago, which was passed in 1910, reads:

“No new bakery shall be established after the passage of this ordinance in any room, basement or cellar the floor of which is more than five feet below the street sidewalk, or any alley level adjacent to the building.”

That practically cuts out the basement bakeries.

Q. You think under the Sanitary Code to-day the Health Department has the power to issue an order of that kind now?

A. I presume it would be contested, but I think the Health Department would be upheld on it as a sanitary measure.

Q. I understood you to say in its sanitary standard the Board of Health should fix the distance below the street line at which a bakery should be located? Was that your point? A. Yes.

Q. That would fix it? A. That would fix it. It might be that the prohibition in regard to cellar bakeries would have to come through State legislation. On that point I am in doubt. I talked it over with the Corporation Counsel, and he was not certain.

Q. To make sure you think there ought to be a State law or an amendment of the Charter? A. Yes, as far as the prohibition of cellar bakeries is concerned, yes. The sanitary condition of

the room would be fixed by an amendment to the sanitary code, without reference to the state law.

Miss DREIER: Do you consider that cellar bakeries are bad in any city, not only in New York, but are bad in all cities at all times?

The WITNESS: I should say that cellar bakeries are undesirable wherever found. You cannot get ventilation and light and air, and that is required.

HENRY R. SEAGER, a witness being first duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Will you be kind enough to tell the Commission your titles and position in the University? A. I am Professor of Political Economy at Columbia University. Am President of the American Association for Labor Legislation. I imagine that it is in that latter capacity that I come before you.

Q. Were you also Vice-Chairman — A. Vice-Chairman of the State Commission on Employers' Liability and other matters.

Q. Now, Professor, have you made a study of any part of the conditions with reference to labor in factories and if so, will you tell us briefly and generally what you have done? A. I have been very much interested for several years in the labor problem, and since I came to New York, some ten years ago, in labor conditions here in New York. It has been the interest of a political economist, however, rather than of a specialist, and my first-hand investigation of factory conditions has been limited to comparatively few inspections. I have, however, in connection with the work of the Association for Labor Legislation, taken part in numerous conferences having in view the drafting of bills and so on, that would serve to improve labor conditions in the state. And of those bills one that I think might most properly be brought before you this afternoon, is a bill that was worked

out last winter, having in view the amendment of the law in reference to ventilation of factories in the state.

Q. Are you the author of the bill? A. I am not the author of the bill, but I was chairman of the conference which led to the drafting of the bill.

Q. Before we go on with that, Professor: you say you yourself have made some inspections of factory buildings? A. Yes, but I would prefer not to base any statements on those inspections as they were made some years ago and were not important.

Q. Now will you tell us how important or necessary ventilation is in factory buildings, and what improvements, if any, should be made, and how they should be made? A. The more I have studied the protection of the health of workers, the more I have been impressed with the fact that general conditions of air and light are rather more important than some of the special evils that may receive more attention. It is generally recognized I think, by physicians, that one of the most valuable remedies for disease is fresh air, and remarkable progress has been made in curative medicine by the use of the fresh air cure, especially in connection with consumption and also in connection with other diseases. I think that demonstrates very clearly that one of the most important conditions detrimental to health is the absence of fresh air, and contrariwise one of the most serious reasons for ill health, for illness, for disease and death is the lack of pure air, and that is one of the reasons for the presence of so many anemic persons in a city like New York, is that they lack pure air in a congested city, and that condition is not found in the country where the whole population is obviously much better from that standpoint to any observer.

Q. How many anemic persons are there in the city if you know, have you any estimate? A. I should say a very large number. I think any one walking on our streets is impressed by the pallor and general lack of vigor of the population.

Q. Now you desire to bring before the Commission this bill which you spoke of, Professor? We will be very glad to hear you in your own way about it. A. The present ventilation law of the state is, I think, unsatisfactory to everybody concerned with

it. The Commissioner of Labor finds it very difficult to enforce it. It is unsatisfactory to the employers, because it is ambiguous, and it is unsatisfactory to the worker because it does not secure good ventilation. The main points that, it seems to me, should be aimed at in a ventilation law are to secure immunity from the presence of poisonous gases, or dust particles or other substances in the air, that arise as a result of the kind of work that is carried on. That is, special forms of ventilation should be adapted to special kinds of work that call for them. And second, general ventilation that will insure a sufficient quantity of pure air under all working conditions. This bill that was drafted as a result of conferences held last winter, aims to accomplish these two ends by prescribing certain requirements applying on the one hand to owners or lessees of buildings and on the other to occupiers. The bill in general prescribes, first of all, that every working man in a factory shall be provided with proper and sufficient means of ventilation. Every work room shall be kept properly and sufficiently ventilated. Then it requires that this ventilation shall be provided without lowering the temperature in the working parts of the room below 55 degrees Fahrenheit, or causing injurious drafts to those working in the room. Then it prescribes standards as to sufficient means of ventilation. And in this connection it chooses as a standard either a test as to the contents of the air, the so-called carbon dioxide test to determine whether or not the air has been vitiated, in so far as that test throws light on it, or the volumetric standard, that is the requirement that there be let into the room from outside sources a certain amount of air per hour for each worker in the room, and the standard there is 1200 cubic feet of air per hour for each person plus an additional number of cubic feet of air per hour for each cubic foot of gas burned per hour. This alternative standard was chosen after rather prolonged discussion of the relative merits of those two standards. The ventilation engineers who came before us very strongly preferred the volumetric standard. That requires some system of artificial ventilation which pumps into the room in some way a certain amount of air per person, plus an additional amount per gas jet in use in the room. The other standard, the carbon dioxide standard, was preferred by the

representatives of the Department of Labor, and on the whole I think, by the owners of buildings and occupiers who came before us on the ground that to require an artificial means of ventilation always, under all circumstances, would be unfair, and that, after all, what we aimed at was proper air, a proper quality of air, and those could be secured by testing the air from time to time through the carbon dioxide test.

Q. Have you ever made any study of the subject of bakeries in this city? A. No, sir; I never have.

Q. Are you familiar enough with the subject of bakeries located in cellars to say whether or not they should be prohibited?

A. My impression would be that they should be prohibited, but that is not the impression of an expert on the subject.

Q. Now, with reference to jurisdiction over manufacturing in tenement houses, have you made any investigation or study as to the best method of the control of that for the best interests of the public and the workman? A. As regards the labor conditions I think that the Department of Labor is the authority that should control.

Q. Is that also true of manufacturing carried on — you believe that the Department of Labor should have sole jurisdiction? Of course, it has been shown here that there is a duplication both of inspections and of authority in many cases in manufacturing establishments, and the Commission desires to ascertain how that duplication both of inspection and authority could be remedied. We would like to have your opinion on the subject, and would be glad to have you go into it as fully as you wish. A. Well, I must approach it in this way. There are obviously three aspects of the situation that are to be considered: protection from fire, which affects not only the people in the building, but those in the adjoining building; there is a public interest; protection of the public health, that comes in in connection with a business like bakeries; protection of the health and safety of the workers in different working places.

As regards the first aspect I should say the responsibility ought to be concentrated in the Department in the city government that is concerned with fire protection, and its authority should be as comprehensive as is needed to insure adequate protection from fire.

As regards the second aspect I should agree with Commissioner Fosdick, that we get better results by concentrating responsibility on the Health Department, and in connection with such a business as that bakery business, that would be an excellent reason, it seems to me, for withdrawing the authority of the Department of Labor and concentrating the authority with the Health Department.

As regards the third aspect, that is the health and safety of the employees, personally I think the authority ought to be concentrated in the Department of Labor.

Q. And in that connection do you believe, do you recommend that there should be a medical inspection of working people in some of the manufactories, particularly those that manufacture food products? A. I should hesitate to make that recommendation. I think cleanliness would go a great way to accomplish the result that would be aimed at, and until we have that enforced, I think it would be wiser not.

Q. What have you to suggest, therefore, with reference to the registration or licensing of manufacturing establishments? A. I think that for manufacturing establishments it is very desirable. I have here a report published recently by the International Association for Labor Legislation on inspection in Europe. And I find in that report that in the more important European countries it is the practice to require a license at the time the factory is built or extended, or additions are made to it, and also a license or notice at the time that the building is occupied and is started as a going concern.

The CHAIRMAN: What countries?

The WITNESS: These countries as regards the requirement on the question of licensing of the building are Germany, Austria, Belgium, Denmark, Sweden, France, the United Kingdom, Hungary, Italy, and so on; as regards the occupation, the countries are Germany, Austria, Denmark, Finland, the United Kingdom, Hungary, Norway, Sweden, Switzerland. These countries as a result of their experience seem very generally to have come

to the license method as a basis for enforcing their labor and other regulations.

Q. Then, do I understand, Professor, you recommend legislation requiring both registration and licensing of all manufacturing establishments? A. Yes.

Q. Should the license be renewed from time to time or given for a limited period? A. I think it would be well to have them annual licenses, and to insure in that way a careful inspection.

Q. Would you be willing to file with the Commission the report to which you have referred? A. Yes; I should be very glad to, but I will send another copy to the Commission if I may.

Q. Professor, you are familiar with the administration of the State Labor Department—I don't mean to say actually but generally? A. Yes.

Q. There is now no medical Bureau or Department except for that one position? A. One Medical Inspector.

Q. I want to ask you whether you would be in favor of the establishment of a Medical Bureau in that Department, and an unpaid Advisory Board of Physicians, or what would you suggest with reference to that? A. I think a more immediate need in the Department is another engineer who has made a specialty of ventilation; that is a point on which the Department has been very weak. The law prescribes adequate ventilating appliances. It rests with the Commissioner of Labor to say what is adequate. That means that it rests with his first Deputy Commissioner. That Deputy Commissioner is not an expert engineer and for many reasons it is better that he should not be, because he is an administrative officer, but he ought to have some one under him who is an expert engineer, and whose judgment as to what sort of ventilating apparatus would be adequate in a given situation is an expert judgment. Behind that expert there should perhaps be a Board to which decisions might be appealed in case the owner or occupier regarded them as unjust and unfair.

Q. I am informed that the Labor Department has just appointed an expert on ventilation. A. Is that so?

Q. A mechanical engineer. A. That is a superintendent of safety devices. I had in mind something more special. This new member, as I understand it, is to look after safety devices particularly rather than ventilating.

Q. Should there be a museum of safety devices established by the state? A. I think that would be highly desirable, as soon as the state is ready to make the appropriations that would be necessary to make that a success. It would be very expensive. I do not think a museum should have a smaller income than \$50,000 a year. I do not think one with a less amount would amount to much of anything.

Q. Are you in favor of such an institution being endowed by the state or being a part of the State Department, or just how would you advise it to be instituted? A. My own view and my own effort for the present is to get the National Government first of all to establish a model museum for the whole country, following the lines of what it has already begun in connection with safety in mines. It has a special Bureau of Safety in Mines, and it seems that there is no reason why it should not have a special Bureau for Safety in Manufacturing Establishments. If that is done, I think the state might very appropriately maintain Bureaus within the borders of the state. But from the point of view of comparative importance of different things, I should not feel like urging that New York State establish a Bureau or Museum of Safety Devices at the present time.

Q. Have you made any study of the subject of child labor and of the labor of women who are pregnant? A. Yes.

Q. Will you tell the Commission what suggestions or recommendations you have to make upon that subject, if any? A. I have no suggestions except that we follow the enlightened policy of European countries, for the problem of the employment of married women is an important problem, that it prescribes that work must cease at least two weeks before a childbirth and must not begin again until at least six weeks, or at any rate four weeks after childbirth.

Q. Would you favor the physical examination of children who are employed in labor as well? A. I favor the plan that we have now, that is, requiring a physical examination in connection with the issue of working papers, where there is reason to think that the child is not fit to go to work.

Q. Is there anything further, Professor, that you would like to recommend to the Commission, or speak about? A. Only

one thing, that is with reference to this subject of ventilation. I believe that the present law might be improved in a way that all would favor it, by prescribing special means of ventilation where the condition of the work gives rise to obnoxious gases or dust particles or some other element in the air that ought to be removed.

And as regards this phase of the matter, I think the bill I speak of, and I would like to file with the Commission, although it doubtless has a copy of it, is excellent. As regards general ventilation the bill proposed is not so satisfactory, because it fails to make what I think should be made, a distinction between old buildings and new buildings. That is, I think, in connection with new buildings, new factories or buildings to be used for work rooms, the law ought to prescribe adequate means of ventilation as a part of the necessary equipment of the building, and that such a prescription would not be unduly onerous for the manufacturer or building owner. In connection with old buildings, prescription would have to be, I imagine, on occupiers, and I think we might content ourselves with a lower standard possibly, looking forward gradually to scrapping old buildings and having only new ones used in connection with manufacturing. In a city like New York, where the city is being rebuilt perhaps every twenty years, a high standard for new buildings would give us within a comparatively short time, a fairly satisfactory situation as regards ventilation. As it is now, we allow new buildings to be put up without any provision for ventilation at all, even when they are intended for use as loft buildings. It seems to me that is very unfortunate.

CHARLES E. A. WINSLOW, called as a witness and being duly
duly sworn, testified as follow:

Examined by Mr. ELKUS:

Q. Professor, with what college are you now connected? A. I am Associate Professor of Biology at the College of the City of New York, and Curator of Public Health at the American Museum of Natural History, and Lecturer on Industrial Hygiene at Teachers' College, Columbia University.

Q. Before that with what university were you connected? A. I taught public health for twelve years at the Massachusetts Institute of Technology, and for one winter at the University of Chicago.

Q. What particular subject with reference to labor conditions have you made a study of? A. I have made special study and have taught in Boston, Chicago and here in New York, the subject of industrial hygiene. I have made special studies of the bacteriology of air and its relation to health. I am Chairman of a Committee on Standard Methods for Examination of Air of the American Public Health Association, and I made a rather extensive study of conditions in Massachusetts, and took some part in the framing of the present law governing factory inspection there.

Q. You are generally familiar with the subject of inspection of factories, and ventilation and light in factory buildings? A. Yes.

Q. Taking up the question of ventilation and light in factory buildings, does that need improvement or not? A. In my judgment this question of factory ventilation, including under that term the removal of dust as well as general ventilation, is one of the most important problems that we have to deal with. In the past, factory sanitation has been regarded as largely a matter of special industrial poisons. When a workman gets lead poisoning it is a very terrible and very striking thing, and in those industries that are subject to these poisons, the sick rate and the death rate is very high. But after all they are small industries. The marked poisonous trades are small ones, when you consider the total number of people affected by dust and bad ventilation in bigger industries, I think it far outweighs the more striking individual cases due to poisoning.

Q. What is the effect of dust and bad ventilation? A. Dust in the first place, to take that up, exerts its effect by direct mechanical injury to the lung tissue. The human body in coping with a disease like tuberculosis is able to take care of itself if it is in good condition. If the delicate lung tissue is injured, lacerated by particles of stone or steel or even vegetable or animal fibre, that turns the scale. It is just enough to lower the vitality

of the lung tissue and cause tuberculosis. We know by statistics that in a very dusty trade, like stone cutting and grinding, sometimes four-fifths of all the deaths are due to tuberculosis instead of a quarter or less than a quarter, as in the normal adult population. The kind of dust that is breathed in in this case may be illustrated by some photographs which the Commission might possibly be interested to see. Here are three or four of these photographs. These were taken by a worker in Massachusetts cordage factories, who actually sucked in the air by normal breathing through the mouth. She held a little glass tube in the mouth and simply breathed in through the mouth and out through the nose, and that dust represents the amount breathed in in one-half minute. Sometimes there is very little, as shown by the photographs. Each one represents different conditions; in some cases there is very little and in some cases a great deal. Those jagged particles are the things that do the damage, and constitute one of the most fruitful causes of tuberculosis.

Q. The damage they do is the lacerating of the tissue of the lungs? A. Yes.

The photographs were each marked (four in number) Exhibit No. 1 of this date.

The WITNESS: If I might take one minute, I would like to read a short note I received from a physician in a Massachusetts town, which shows how it looks to the man on the spot.

"I have been in practice in East Douglas since 1863 with the exception of some thirteen years following 1872. I have seen quite a number of cases of so-called grinders' consumption. I have examined one case *post mortem*. I found the small bronchial tubes thoroughly filled with the grindstone grit; the lung in the lower part looked like and felt like the liver after cooking. The symptoms are excessive dyspnoea on slight exertion, dry cough and great prostration. The grinders are from the Polanders and Finns for the past dozen years. The disease takes hold of them more frequently and is more rapidly fatal than among the grinders of former years and of other nationalities. When I came here forty years ago I found the victims among the Yankees

who had ground some twenty years before. Those would grind eighteen or twenty years before having to give up work. The French Canadians were then grinding. They could work twelve to sixteen years. They became frightened off and the Swedes took up the work. They would get the disease in eight or ten years. Now the Finns and Polanders are at it, and they last only three to five years, and the disease is more common among them."

Q. When this doctor says they last from three to five years what did he mean, they died? A. Die of tuberculosis at the end of that time.

Q. This tuberculosis is caused by improper ventilation, is it? A. Well, we must distinguish between general ventilation, which concerns the air of the workroom and special ventilation. Dust can be removed by special ventilation, by putting hoods over the machines, with powerful currents of air to draw off the particles.

Q. Do you know whether any of these conditions exist in the manufacturing establishments of the State? A. No, I have practically no experience in New York factory conditions. If I may go on to the other question of general bad air and say just a word, first as to what I mean by bad air. The sanitarians do not mean —

Mr. ELKUS: (Interrupting) May I interrupt you to say Dr. Rogers of the State Labor Department informs us that those conditions do exist in New York State.

The WITNESS: A sanitarian when he speaks of bad air does not mean any mysterious subtle poison, but means for the most part a very simple thing, one comparatively easily remedied. The main thing about a badly ventilated room is the over heat and over moisture. You have a lot of persons in the room, they are producing heat, and they are producing moisture. The sense of discomfort we feel in a badly ventilated room, is like the sense of discomfort we feel on a hot day in summer. Those are the conditions if the air is not changed. The air in the room becomes heated and overmoist and that has a very bad effect on health. If one compares one's own sensations on a sultry

day in August with one's condition on a bright winter day, one can get a very good measure of the effect of that sort of air on vitality. And of course the danger is enhanced when a worker from such a hot, moist, dead atmosphere passes out into the chill night air. There is nothing that has a much more widespread effect in producing tuberculosis, pneumonia, bronchitis, etc., than conditions of that sort, and these conditions affect almost all industries. One can gain an idea of the prevalence of these conditions in New York. I tabulated some of the results from Dr. Graham Rogers' reports for the last three years and it appears from that tabulation that of a group of factories which he studied, fifty-nine had a temperature of less than 72 degrees; ninety-three had a temperature of 80 or over. In making that tabulation I excluded all cases where the outdoor temperature was 70 degrees. Now, it is a well-established fact that any temperature above 72 degrees mean decreased efficiency and lower vitality and as for workers at a temperature of 80 degrees to which about a quarter of these workers were exposed, they are under a condition which gravely menaces their health.

Q. Professor, has ventilation, poor ventilation, any relation to accidents? A. I know of no specific demonstration of it, but I think that nobody who is familiar with the human organism can doubt that it does have an important effect. Anything which lowers the general vitality is going to make more accidents.

Q. What recommendation or suggestions have you to make with reference to the improvement of ventilating conditions in factories? A. There are two steps that seem to me might very well be taken. In the first place, I would like to express my entire agreement with what Professor Seager has said about the bill introduced by Mr. Boylan in the last legislature. I think that bill deals very well with the problem of dust, and as well with the problem of ventilation as we can deal with our present knowledge.

Q. What have you to say with reference to establishing a standard of ventilation, and what can be done and what should be done in regard to that? A. I do not see how, with our present knowledge we can go further than is indicated in this bill. I was at the conferences, took part in the conferences which led to the framing of this bill, and it seems to me that this goes as far as

we can go in the way of framing a standard with our present knowledge.

Q. What have you to say with reference to preventing overcrowding in manufacturing establishments? How can that be done? What regulation can be made with reference to floor space and its uses instead of some regulation as it is now, with reference to the required number of cubic feet, which is more or less overcome by having the floors of a great enough height, but still having a great deal of crowding? A. I do not regard that problem as of very special importance, if problem of air supply can be handled. These provisions in regard to cubic feet of space and floor space have not in England, for instance, had any particularly beneficial effect. You can have people quite far apart and yet have the air in the room very bad. You can have them fairly close together and have conditions excellent. I should prefer to see the problem attacked from the other end.

Q. How about fixing the degree of temperature in a room, should there be a standard as to that? A. That, it seems to me, is the most important single step; a thing that is almost too obvious to receive much attention. We are all, I suppose, like the men in the fable, who did not want to take a simple way of dealing with a question, but would use something complicated, use something remote. We are very ready to pass laws, take measures to deal with abstruse things with long names; but when sanitarians tell people the great danger is overheating, it is hard to make them believe it. I think that is the most important single measure that can be taken.

Q. What would you suggest should be done, and how can it be done effectively with reference to that? A. The sentence in this law—I am going to go back to that again, because it expresses my best knowledge on the subject—a clause in this proposed law provides that the temperature in any factory, workroom, except a boiler shop—a boiler room—shall not exceed 72 degrees Fahrenheit, as determined by the wet bulb thermometer, unless the temperature of the exterior air exceeds 70 degrees Fahrenheit as determined by the same process, in which case the wet bulb temperature of the workroom shall not exceed that of the outside by more than 5 degrees. This wet bulb

reading shows at once the temperature and the moisture in the atmosphere. It is very different from 72 degrees on the dry bulb.

Q. Would you favor in connection with that, what are called self-registering thermometers, a registry of the heat and the degree of temperature is kept possibly a week, or other period, so that any inspector could ascertain the same when he came? A. I think they are helpful to supplement the work of the inspector with more accurate instruments. I do not think that they can be relied upon entirely. If they were checked up on a visit of the inspector by the use of a proper instrument, they would be valuable. This standard of 72 degrees with a wet-bulb thermometer does not go nearly far enough, but it goes as far as we can properly go in the light of our present knowledge. That is the main thing but we need further investigation of conditions.

Q. Investigation of what conditions? A. We need a much more thorough knowledge of what conditions are in factories. That seems to me to be the prime need in this state, and in all states of this country.

Q. This Commission has been appointed with the duty, among others, of investigating conditions in factories so as to be able not only to state the facts after such investigation, but also to suggest remedial legislation. Now the Commission has made, and has had made, a number of investigations, and is having others made at the present time, and they will, in due time, be reported to the Commission. We would like to be enlightened as to what you think should be done by the investigators of the conditions? A. I think from what I know of the plans of Dr. Price, that the investigators of the Commission are altogether on the right track and doing the best thing they could do. The point I want to emphasize is this —

Q. (Interrupting) You are familiar with the plans of the Commission? A. Yes, in a general way.

Q. I want to know now, whether you believe we are pursuing the right path? A. Yes; I do.

Q. And that the investigations to which you refer as being required and being necessary are those which the Commission is undertaking? A. As far as they go. I think the investigations I have in mind are investigations which ought to occupy a consider-

able force for a considerable period of years. The thing that is most important is that the Commission shall provide for the Labor Department a proper expert force. When one considers the importance of this matter, it is a ridiculous situation that all the interests as to health of the workers of New York in their factory life, should have at the present time the services of only one expert, Dr. Rogers. Now, in addition to Dr. Rogers, we are to have an expert on fire protection. There should be not only medical inspectors, there should be medical experts and ventilation experts, and engineers and chemists to assist Dr. Rogers.

Q. In other words, there should be a Bureau in that Department,—of which Department Bureau, either Dr. Rogers or some one else should be at the head? There should be a scientific bureau with these three phases represented — medical, engineering and chemical.

Q. What do you say of the institution of an unpaid medical board of advisers to that Bureau? A. I think that the system of an unpaid board ought to work very well. We have had a great deal of experience with that in Massachusetts and our State Board of Health has for many years been a model for other states. I should be very sorry to see that Board solely a medical board. The medical phase is one phase.

Q. The Board is composed of physicians and experts upon lighting and sanitation and ventilation? A. Yes.

Q. That is in addition, of course, to the paid Bureau to which you have referred? A. In addition to the paid Bureau, I think the Advisory Board should represent the engineering side as well as the medical side and laboratory side. One important reason to my mind for such provision for experts in the pay of the Board is that I think the work of such a Bureau should be largely educational. It is not like the ordinary exercise of police power. It is not a question of saying to the factory owner, you are wrong, this won't do. I believe a Bureau of this kind should do what we call educational inspection, should assist the factory owner, not taking the place of a private engineer, but giving him advice which would help him bring his factory to the right conditions.

Q. In other words, the Department of Labor ought to have men whose business it was to not only pick the flaws, but to suggest the remedies in general terms.

Have you any suggestion to make with reference to any change of the present Labor Law — when I use the word Labor Law, I mean in the very general sense, not in any specific sense?

A. No, I am not competent to deal with any phases of it beyond the field of sanitation.

Q. You have used the word sanitation and have only spoken of ventilation and light — you have not spoken much about light. What else is covered by that general word? A. Well, as far as the health of the workers in factories is concerned, we commonly divide the subject under five main heads — factory accidents, industrial poisonings, ventilation, the effect of dust and lighting. Those are the principal points to be considered. I think lighting is a matter of very great importance, the amount of light and the distribution of the light is very often inadequate and improper, sometimes excessive. Sometimes the light is so situated as to produce a condition of excessive lighting as well as inadequate lighting. The question of industrial poisonings I have not alluded to because I think that has been pretty well covered by others in your hearings.

Q. You say you have made a study of the subject of inspection of factories? A. I have, some study.

Q. Are you familiar with the facts which have been testified to here by many witnesses, that there exists in this State, and in this city particularly, duplication of inspection and duplication of authority with reference to factory buildings and factory conditions, so much so that we have at times three or four different Departments who have authority to inspect various buildings. Have you any suggestions to make as to how that can be remedied?

A. No. That is everywhere a very hard and knotty problem.

Q. Did you hear my question to Commissioner Fosdick about that? A. No, sir, I did not.

Q. It has been suggested to the Commission and has been suggested in view of the facts — I might preface what I have to say by stating that our own Commission in making investigations has employed inspectors who have found and ascertained facts in factory buildings, not only that come within the purview of the Labor Department and the Labor Law, but the Fire Department regulations and rules, the Tenement House Department, the

Building Department and some other Departments, and all have been done by one inspector. We want to know from you whether in your opinion that could be done by a Department of Inspection, for example, which might be a subordinate Department, some other Department of the State or city, and upon those reports proper action taken by the various Departments in charge of the buildings? A. I should not like to speak about that. I am not an expert on municipal government.

Q. Is there anything else that you would like to suggest or recommend to the Commission? A. Only just one word. I should like to say in regard to the object and results of such measures as I have been advocating, it ought not to be felt that they are class measures. I believe very strongly that such measures as we have been speaking of are simply measures for the promotion of efficiency. Of course, there are exceptions to this. There may be certain small industries where it is very expensive to secure the safety of operators and where it is cheaper for the manufacturer to let the operators die in three or four or five years, and get new ones, but I believe that those are very, very rare, and that in nine hundred and ninety-nine cases out of one thousand such an effective bureau as has been alluded to would not only protect the life and health of the worker, but would more greatly protect the industrial efficiency of the industries concerned; this has been demonstrated in a number of cases where improvements in ventilation resulted in the decrease of absence and an increase in the output. I once investigated a case of that kind myself, the tollroom of the New England Telephone Company.

Q. We will be very glad if you will give us your exact experiences there. A. In that case there was a small room with a number of girls crowded into it, and an improvement was made in ventilation, a small improvement, one that was not costly and which resulted during the next winter in cutting the absences in half, without, as far as we could determine, any other change in personnel. The absence of the girls during the winter months was cut in half. In that particular case they were not paid for the time they were absent — so it did not mean any direct money return on the pay rolls, but it did mean a very considerable gain

to the employer in the constancy of the work, because getting in substitutes, and untrained girls, had a detrimental effect on the business.

Q. What kind of ventilation was installed there? A. That was simply a duct run along the ceiling, with a small fan, a very simple thing, and it cost in that particular case \$75 to install that ventilation. There is a case quoted, I did not investigate it, the Hat Factory of Townsend Grace Company, where the manufacturer stated the ventilating system had paid for itself in a year.

Another case was a printing shop in New York, where the Department of Labor secured the installation of a ventilating system after a resistance lasting two years on the part of the owner, and after the system had been in use a year, the proprietor said that if he had only known of the beneficial effects there would have been no order necessary. Whereas, formerly men left work on a busy day in an exhausted condition, and sickness was common, now they worked on all day in an entirely different condition, the sickness was reduced, the errors in type setting and the time required for making corrections were greatly reduced. Our living machine is an extraordinarily delicate machine; it is a most delicate machine. There are manufacturers who are very careful to have the right temperature and moisture for their cotton machinery, but they have heretofore paid little attention to this living machine which is the most important one in the factory, in regard to giving it the conditions which will secure its efficiency. I do not want to seem to take a cold and heartless view of the matter. I am not blind to the bigger question of the life and health of the operator, and that goes without saying. The point I want to make is that the same measures which make for the life, health and happiness of the worker must make for industrial prosperity.

Q. That is to say, taking care of the life and health of the worker means money in the pocket of everybody? A. Means money in the pocket of everybody, the manufacturer, and the public. As the sacred writer says, the people perish for lack of knowledge, simply lack of knowledge, of how to do things to get the best results. That knowledge, with a proper force of

experts, ought to be supplied to the manufacturers, workers and public of this State.

Q. You say the Bureau ought to start an educational campaign? A. Exactly. First, it has to educate itself by having more men to do the work that Dr. Rogers has done alone. He has thrown a flood of light on this subject, but one man cannot do what ought to be done.

Mr. ELKUS: I think the Commission all feel the same way about Dr. Rogers.

Miss DREIER: You spoke of 72 degrees being the right temperature in present conditions. Now, aren't there certain trades which would require a higher temperature?

The WITNESS: That was 72 degrees on a wet-bulb thermometer. That might mean a considerably higher temperature by the ordinary thermometer. The wet-bulb thermometer is a thermometer with a bulb moistened by a wet cloth, and a temperature that is lowered by evaporation in proportion to the amount of moisture in the air. If the air is very dry that thermometer may read ten or twenty degrees lower than the dry-bulb thermometer. You might have a wet-bulb thermometer registering 72 degrees and an ordinary thermometer registering 90 degrees, and on the other hand they would be just the same if the air was saturated. It measures the combination of moisture and heat.

Miss DREIER: In trades where higher temperature is needed, would it not be wise to shorten the hours of labor for the workers?

The WITNESS: I think that that would be necessary in some trades. This 72 degrees wet bulb is an extreme limit. I do not think it ever ought to go beyond that. It probably very seldom gets up to that. The limit ought to be placed much lower, and it ought to be placed differently, possibly for different trades, according to their needs. The limitation might be combined as you suggest with regulations about the hours. But we cannot do

anything of this kind now, because we do not know what the conditions are in regard to temperature in the industries. Dr. Rogers has studied very exhaustively the garment workers. In most of the factories we do not know what the temperatures are, or have to be. That is one of the cases where we need a great deal of study of working conditions because, of course, you have to know what the conditions are before you can frame proper laws. This 72 degrees wet bulb is a very extreme case, but that is as far as we can go without further knowledge.

Q. Will you leave with us these photographs? A. I shall be glad to; could I have them back?

Mr. ELKUS: Certainly.

E. LEAVENWORTH ELLIOTT, called as a witness and being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. What is your profession? A. I am the editor of the magazine called the Illuminating Engineer.

Q. Where is that published? A. In New York.

Q. Have you made a special study of light in connection with the labor problem, or perhaps you had better tell the Commission what you have done yourself with reference to that? A. I have made a special study of light and illuminating for the past thirteen years—eight of them in regard to the developing of lighting appliances and five years in the editing of this magazine, during which time I have naturally studied the industrial problems in lighting.

Q. Will you tell the Commission briefly just about what you have done in studying the industrial problems as far as they relate to lighting? A. This has been the observation of the illumination of factories of various kinds in different parts of the country, and more specifically the study of a number of the shops and factories in the suit industry for the joint Board of Sanitary Control which I made the latter part of last spring.

Q. Will you tell the Commission what are the present lighting facilities in factories and manufacturing establishments generally

speaking? A. Well, that is a rather long question. The light sources and accessories for producing illumination at the present time are numerous. They have increased very largely within the past ten years, and the methods of obtaining them are very various.

Q. Are they divided into three general classes such as gas, electric light, and of course the natural light? A. Yes; that division I think is a good one.

Q. Will you tell the Commission what relation those three general classes have, if my question is an intelligent one, to the sight of the working man and woman? A. Well, daylight is of course taken as the standard of illumination — daylight under proper conditions. In artificial illumination the object is to approach daylight conditions in quality of light or illumination, and in the amount. Those are two distinct things as I can explain further. As to the division of gas and electricity, it is possible to produce for most purposes equally good results with either. It is a question of the method of their use and not of the source. There are some very special cases in which one or the other might be preferable, but for general purposes the proper use of either light produces equally good results.

Q. Is there any standard of light now established for use in factories, and also is it possible to have a standard? A. There is no standard of illumination so far as I know, that has ever been laid down for any purpose. The subject is one that has been rather rapidly changing, as I suggested, within the past ten years. The systematic study of illumination is about ten years old, and perhaps not that even, so that no definite standard has yet been laid down.

Q. In your opinion should they be laid down? A. I think that the state of the art is now such that standards can be set.

Q. Ought they to be? A. I think they should decidedly.

Q. What Department should create such a standard? A. Well you mean as to the creation of it?

Q. Fixing the standard? A. I should say that the Bureau that was referred to in previous testimony this afternoon would be the proper one.

Q. A Medical Bureau of the State Labor Department? A. Yes.

Q. Or Technical Bureau? A. Yes, Technical Bureau should contain a working specialist or illuminating engineer.

Q. What is the effect of poor or inadequate light and lighting facilities on the sight and the general health and the industrial efficiency of the working man? A. That is a point that probably is in serious need of investigation, as any point in connection with factory hygiene. Illumination should be considered from two standards, first with reference to industrial accidents and second in its effect upon the general health and morals of the working man. There is no doubt that illumination has probably more to do with accidents than any other single cause.

Q. Can you give us some information about that? A. Yes. A paper having statistics of very material value on that was presented to the Association of Mechanical Engineers during the present year, by Mr. John Calder, who had collected the results of fatal accidents from injuries from an area embracing 80,000 plants of various extents and this is shown by a diagram here. I shall be glad to leave this matter with the Commission. These show that the accidents are at a minimum in July, fatal accidents, where the number runs 45, I should say here (reading on the diagram), up to 85 in December, and the variation is right up in that curve; that is, that the accidents increase as the days shorten, reach a maximum in December when there is the largest use of artificial light, and then drop off almost uniformly as the days lengthen again.

Q. That leads to the next subject I would like to take up, as to the intensity and brilliancy of light, and to inquire whether it is possible to have a standard for the intensity and brilliancy of light? A. Yes; I believe there should be a standard and that it would be possible — not only possible but very feasible to make that standard.

Q. Can you tell the Commissioners what, in your opinion, that standard should be? A. Well, that should vary for different classes of work. I think that in order to make a practical light regulation, without having to specify now a great number of industries, that if we had all work which was performed within arm's length, we would come pretty near to having that which would require sharp vision. That is all sorts of mechanical work, sewing

and other things. These rooms should have the highest intensity of illumination. Then another class of work like iron mills and lumber mills and other coarser work in which the working object is some distance away, that could be done at a lower intensity. And then there are storage yards and passageways in which a little work is done, but which the failure to illuminate is one of the numerous causes of accident, could have still a little lower illumination.

Q. Is there any way, Mr. Elliot, of measuring the intensity of light? A. Yes.

Q. Tell us what it is. Is there an instrument for it — for that purpose? A. The intensity of illumination can now be measured with a very high degree of accuracy by an ordinary layman with ordinary skill with an instrument that is by no means prohibitive in price. I have such an instrument here.

Q. Before I ask you to demonstrate that to the Commission, as I am going to, I would like to know if you can tell the Commission what standard you would recommend for intensity and brilliancy of light in the different occupations as you divide them?

A. For working at arm's length and in reading print generally 2-foot candles of intensity is necessary.

Q. Explain what you mean by that. A. A foot candle intensity of illumination is the brightness or illumination on a surface one foot from a standard candle flame or from a light source of one candle power. It measures the illumination and not intensity of the rays. It is a measure of the brightness or illumination of the surface, and is now used in illuminating engineering for that purpose, generally recognized.

Q. Now will you explain the instrument which you have been kind enough to bring here, how that measures the light, the intensity of the light? A. The instrument is of foreign make, but I believe will soon be duplicated in this country, and I would like to state that there are absolutely no patents on the instruments. It is simply a question of good design so that any one is at liberty to design an instrument and make it. It is nothing upon which a patent monopoly could be maintained. This instrument requires the use of a small electric battery, an instrument which would weigh about three pounds, easily carried in the hand. In order to make the measurement, the observer looks through this eye piece

directing the instrument towards the surface on which he is to measure the brightness, and with two small levers here he varies the comparison of illumination within the instrument, in using it he points it toward the object he measures. These levers tell — he gets a balance in there which consists in getting the spot of light in the center of the same intensity as the field around it. When he has brought these to a balance, aiming at the surface, he then reads off directly on these scales the foot candles of illumination of the surface toward which he has pointed it.

Q. That is to say he finds really on the scale the standard he sought to obtain for perfect intensity of light? A. No, if I wanted to know how bright that surface is here now, I aim my instrument at it and regulate my standard right until my standard is of the same intensity as this, then by reading the standard I know the intensity of the light.

Q. Then you can remedy it to come up to the standard? A. If this is not up to standard, I know it, and know it within five per cent or less.

Q. And that is a very simple thing? A. Very simple thing.

Q. And anybody of the most ordinary intelligence could test that? A. Yes; the instrument was tested out by an operator who had never worked an instrument before. He took some seven hundred or eight hundred measurements with it, and found they were within five per cent of accuracy.

Q. You said this was of very moderate cost. Have you any objection to telling the Commission what it costs? A. This instrument I think is about \$50 and I think the American instrument which is soon to appear will sell for \$50 to \$75.

Q. I interrupted you I think, Mr. Elliot. You only gave me the standard you would prescribe for the first class, that is work done at arm's length? A. I should say that ought not to be less than two-foot candle, which is the generally accepted standard for good reading. If we wanted to be more exact, we could discriminate in material, but that would probably be impracticable. At the beginning I should say that that would remedy all the worst defects in light, as to the quantity. Now, as for the second one, I should say that ought to be a foot candle — a half of that, of work that is where the working body is further than arm's length.

And for storage and passageways — storage yards and passageways, probably a quarter of a foot candle.

Q. How about the standards for brilliancy for the same three classes? A. Well, the standards for brilliancy, while it can be specified, it is not quite so easy, besides it involves the measuring often of a very small surface; as for instance the filament of a incandescent lamp. Its brightness or intrinsic brilliancy as technically known, is well known. The manufacturers know it, and it would be impossible to specify a maximum brilliancy which would cut out all bad light sources which are too brilliant to be safely encountered by the eye.

Q. What standard would you suggest for brilliancy? A. I could not give you that off hand as I do not trust my memory with figures.

Q. Have you the figures with you? A. I have not.

Q. Will you send them to the Commission? A. I can easily give them to you.

Q. We will be obliged to you if you will. A. I can make that specific.

Q. Have you any suggestions or recommendations to make as to any legislation, or any increased powers in the Labor Department or any of its bureaus? A. Well, the mention of illumination in the labor laws of this State and of other states so far as I know is inadequate in that they simply mention good and safe illumination, which leaves it entirely a matter of judgment with the inspector, and makes the law practically useless.

Q. That is there are no standards? A. There are no standards. There is only one country in the world that specifies illumination; that is Holland.

Q. I understood you to say they used this system in England? A. That is a recently designed English instrument. It has come out within a year.

Q. Do they prescribe its use by statute there? A. They do. The proper authorities in England have the question before them for action.

Q. Can you tell us anything about the cost to manufacturers of complying with the standards of light and the intensity of light, of illumination, whether it would be a costly thing or whether it

would pay for itself and is an economical benefit? A. Well, it is I think perfectly obvious that light is the first necessity for work and being so obvious as a previous witness testified, it has perhaps escaped attention more than its importance would justify. The faults of illumination, especially of artificial lighting, are faults of ignorance. Proper illumination in ninety-nine cases out of one hundred would be cheaper in itself, let alone the added efficiency of the laborers. It is a question of knowing how and what to do; and as to the increase in efficiency of labor, while there are not very many statistics on that, from the fact that manufacturers have not given the matter the attention that they should, I know that in some cases they have found an increase of 20 per cent in the output when they have improved their illumination. And in other cases they brought their night production up the full—equal to their day production.

Q. I want to direct your attention to the protection of the ordinary flame or gas light, so as to do away with the glare and the spread of the flame; what have you to say to the Commission with respect to that? A. In the first place, the gas flame has very little license to exist at the present time—the luminous flame—it is several times more expensive than the mantle burner lamp, and almost always flickers which is hygenically bad; and generally speaking, should not be allowed.

Q. It should be protected? A. Yes; I think it might well be; in many cases, on account of the fire danger, while the mantle burner is always protected with glass covering, and on account of its unsteadiness.

Q. Is there any other subject that you would like to discuss with the Commissioners? A. I should like to suggest that this expert, or Technical Board should investigate the effect of bad illumination upon the general health of employees; that is a matter on which there is serious need of legislation. Now, it is known it has an effect, but to what extent, there is little known of it. Records should be kept of that—in regard to absences and other facts.

There is also another point that needs, perhaps, some attention of investigation, and that is the relation of gas lighting to ventilation, I believe there is a rule in this city that a gas flame is considered equivalent to five persons in vitiation of the air. The researches on this point seems to show that vitiation of air by gas

has very much less effect,—that is due to the fact that there are no germs.

Q. Are you familiar with the investigations and the purposes of this Commission? A. Only in a general way.

Q. Are they in accordance with your views as to how they should be conducted? A. Yes, sir.

Miss DREIER: I want to ask whether or not there is any place in this city where there is such illumination—a place that we could visit?

The WITNESS: For industrial work?

Miss DREIER: Yes.

The WITNESS: I cannot recall one; that does not mean that there are none, but that I have not made a great number of investigations in the city. I was, perhaps, looking for the bad places. I investigated a number of sweat shops on the East Side, and found the conditions very bad, but I would be glad to advise you privately.

Miss DREIER: I would like to know; I think it would be good information for the Commission to have.

The WITNESS: I will be glad to do that.

Miss DREIER: Clothes work,—sewing, for instance, and hat trimming, all have very fine stitches; can you give us any idea of the effect on the eye from that work?

The WITNESS: Yes, Madam; the effect there would be, if young people were working, to gradually produce nearsightedness.

Miss DREIER: And in the work of the pearl-button industry; you can, perhaps, give us some information as to the effect upon the eyes of those engaged in that work?

The WITNESS: I do not know as to that; I have not looked into it at all; but I presume they would be affected to some extent; to what extent, I don't know.

Miss DREIER: Thank you, very much.

Mr. ELKUS: I am much obliged to you, Mr. Elliott.

LOUISE CAREY, called as a witness, being duly sworn, testified as follows:

Direct examination by Mr. ELKUS:

Q. What is your full name, please? A. Louise Carey.

Q. Miss Carey, what is your business? A. At present I am employed as an inspector by the Factory Investigating Commission.

Q. You have been employed by this Commission to make investigations of certain factories? A. Yes, sir.

Q. When did you make those investigations, Miss Carey? A. On the 23rd of October, I started to work for the Commission. I want to say now that I am not certain of my figures, but I gave my report to the Commission; I have made investigations of laundries in New York city.

Q. How many laundries have you investigated in New York city? A. I cannot remember; I think I must have examined nearly — well, about 175.

Q. In New York city? A. Yes, sir.

Q. Within what time did you make these investigations in the city? A. Since the first of October.

Q. First of what? A. Since the first of October.

Q. And you have inspected 175 shops; between what hours did you work? A. I started about nine o'clock and worked until five o'clock; and during that time I took off the time to write up my material; I have turned in my material to the Commissioners.

Q. You are giving your best recollection? A. Yes, sir.

Q. You had to fill out a form which was prepared by the officers of the Commission, and upon that you give your information to them, in each case that you have examined? A. Yes, sir.

Q. I want to direct your attention to one case in particular; that is a laundry on Bedford street; can you tell us when you examined that? A. On October 4th, 1911.

Q. Where is it located? A. No. 79 Bedford street, in the cellar.

Q. In the cellar? A. Yes, sir.

Q. What was the name of the concern? A. The Royal Napkin and Toilet Supply Company.

Q. What do they do there? A. They do flat work; that is, they clean towels and napkins for restaurants.

Q. That is, they launder towels and napkins for restaurants? A. Yes, sir.

Q. That is what they call flat work? A. Yes, sir.

Q. Will you tell the Commissioners just what you did in inspecting that laundry; just what you found there; how many people were working there, and everything about it that you can remember? A. I went there, and when I went down into this place in the cellar, if I had not bent my head I would have gotten a good knock; and the air was stifling because of the steam. In that room down there, there were four washing machines, and there were three men working at that time; there usually are two.

Q. How were these men dressed? A. I don't remember.

Q. Did they have any clothes on? A. Oh, yes; they always do. The floor was very uneven, and was covered with water; in some places it must have been several inches deep, because I got my feet so wet that I had to go home and change my shoes.

Q. You mean there was so much water on the floor? A. Yes, and I had to cross it to cross the room.

Q. You visited this place twice in one day, did you not? A. Yes, sir.

Q. Go on; tell us all about it. A. In fact, the extractors running, they were not guarded.

Q. The what? A. The extractors. This is a metal tank with perforations in the side — a heavy iron case. The clothes are put in them wet, and they are revolved, and by centrifugal force the water is forced out through the holes. They are very dangerous, because if a man puts his hand in, he might have his arm pulled off. I have heard of several cases where an arm has been taken off. There are two means of guarding the extractors; one is a metal covering, or wire covering; another is a canvas covering.

The laundrymen prefer the canvas-covered, in fact, they depend upon it almost entirely.

Q. You found these extractors there; tell us what else you found? A. In the next room I found fifteen girls working, according to my record; seventeen according to the manufacturer's statement.

Q. Fifteen girls working in the room? A. Yes, sir.

Q. How large was the room? A. I have not got my record here. It was a very small room; I should say about twenty-five by fifteen by eight.

Q. Eight feet high? A. Yes, sir; the ceiling was quite low, and the girls were working on raised platforms. Now, there is one thing that I want to say in this connection, and that is that when I was in the washroom, I struck my head against the revolving belting.

Q. Because the ceiling was too low? A. Because the ceiling was so low.

Q. Now, in that room; were these girls working? A. Yes.

Q. What did they do? A. Why, these girls were working at the mangle, three were working as feeders, and three were working taking off.

Q. They had the wet towels and napkins? A. Yes.

Q. Tell us about that room, if there is anything more you wish to tell. How about the ventilation? A. The ventilation was just as bad in that room as in the other room.

Q. What about the light? A. The light was not so bad; but the light in the washroom was extremely bad. As I said, the two rooms are situated in the cellar; on one side they are above the street, and the other side they are below. There is a narrow passageway between the laundry and another factory, so there is little opportunity for ventilation. The windows are very small, and the panes of glass are broken. There is no method of heating beyond the heat that comes from the steam; consequently, when the power is turned off, the room gets extremely cold. I was there during lunch hour, and I felt it very distinctly. I was also there when the power was turned on, and I could notice the difference. There is also a great deal of food found on the floor

everywhere, which is shaken out of the napkins and shaken out of the towels.

Q. You say that was on the floor — which room? A. In the washroom; also in the sink where the girls wash, in the girls' room.

Q. How about the appearance of the girls? A. I thought they were rather sickly looking, and I saw two men in the washroom that had the same appearance as the girls.

Q. What was that? A. Very thin and haggard.

Q. What about the hours of labor? A. I do not know. I inquired of a girl who worked there six years ago, and she told me that she was sometimes required to do a half-hour's overtime.

Q. A half hour? A. But no more than that; at that time, the place was under a different management, however.

Q. How was the ironing done? A. By means of the mangle.

Q. Who worked that? A. These girls; three feeders worked the mangle, and three take the material off on either side.

Q. What was the condition of the rooms, generally? A. Extremely dirty.

Q. The floors, ceilings and walls? A. They were very dirty.

Q. These floors where the flat work was done; were they ever cleaned? A. The laundryman told me that they were cleaned several times a day, but I don't believe him. When I went there the second time it was as dirty as before.

Q. When did you go there — once in the morning and once in the afternoon? A. Yes, sir.

Q. And you found them in the same condition? A. Yes, sir.

Q. It was the proprietor who told you that they were cleaned several times? A. Yes, sir.

Q. Did you examine the plumbing? A. Yes, sir.

Q. Was there any closet — any toilet there? A. The men's toilet was in the girl's room. There was something the matter with it, because the air was pretty bad, and the girls were working a foot from it. I think there must have been something the matter in the girl's room also, which was in the washroom, where the men washed.

Q. The men's toilet was in the girl's room and the girls' toilet was in the men's room? A. Yes, sir.

Q. Why was that? A. There is a little more room in the wash-room than in the other room, and they were able to partition it off, and so permit the girls to hang their dresses there.

Q. And both apparently were out of order? A. Yes, sir.

Q. Will you tell us how the air was, and whether you had any difficulty in breathing? A. Yes, sir; I felt that distinctly. One time I had to step out in the passageway to catch my breath.

Q. You had to do that? A. Yes, sir.

Q. How long were you there? A. The first time, I was there about a half an hour, perhaps longer. The second time, I was only there about five minutes.

Q. Will you tell the Commissioners how deep the water was in the washroom? A. I said I thought several inches high; that is, several inches high in some places, because I crossed the floor both times, and I got my feet so wet that I had to go home and change my shoes.

Q. Do you know whether or not this place had been inspected by any inspector of the city of New York? A. No, sir.

Q. Did you ask the owner? A. No.

Q. What would you say ought to be done, if you can, in that laundry? A. I don't think a laundry ought to be allowed in a cellar where the ceiling is below the level of the street. I think that where the canvas covering cannot be used for extractors the employer ought to be required to provide metal covers. I don't think the guard in use was of the best description. It leaves a space on the side where a girl could get her hand in it, or get her arm in it. A large number of the wash rooms are situated below the street.

Q. Regarding the conditions in these rooms is there anything else you wish to tell about? A. There is also a great deal of water on the floor, and a great deal of steam, and the damp rooms are generally very bad.

In the rooms where water was on the floor, do the men work with their feet in the water all the time? A. Yes, sir.

Q. How about the girls? A. There is no water on the other floor.

Mr. ELKUS: Are there any questions which the Commissioners desire to ask?

Miss DREIER: Is there any possibility of ventilating, so that the steam could escape? Did you notice anything of that kind?

The WITNESS: Yes, in the room there was some forced ventilation. There was a hood over the mangle, but it had a depth of only about four inches; generally the hood is about three or four inches deep, and it was about four feet above the mangle.

Miss DREIER: Didn't you say something about catching their fingers in the mangle?

The WITNESS: I said that the guard in use was not a modern guard. The guards made now, on new machines, are very much better.

Miss DREIER: Was there any gas at all?

The WITNESS: There is no gas used in flat work.

Miss DREIER: Not at all?

The WITNESS: No.

Q. Have you made any inspection of what are known as hand laundries in tenement houses? A. Yes; about thirty-seven.

Q. About thirty-seven? A. Yes, sir.

Q. Tell us about that. A. There is a system existing in New York that I don't know exists in any other country, or in any other part of the world. The hand laundry gets the trade and they give the work out to some concern that does the flat work, — what they call the wholesale work and flat work; the rest of the work is done by hand; that is, the ironing is done by hand.

Q. What you mean is that the rest of the work is sent to the tenement house to be done? A. No, not sent to the tenement house to be done, precisely, but it goes back to them.

Q. Let me understand. A party living in the tenement house gets the work and sends it out to some laundry to be done? A. They are what are called hand laundries, and they send it out, and it is brought back to them to be ironed.

Q. And that ironing is done in the living rooms of the tenement house? A. In some cases; there are different types of hand laundries.

Q. What did you find upon investigation of these thirty-seven hand laundries; were the rooms clean, dirty, or what? A. Uptown, where there is a better class of people living, the rooms are clean; they are very badly ventilated and heated, but they are clean. There is no cooking done in the rooms. The people go out to lunch.

Then there is another class, the people on the East and West Sides; there it consists of one room, partitioned off to make two rooms. In the partitioned room, people eat and lunch and cook, and the heat and ventilation is very bad; and the lighting is also very bad. This is on the middle East and West Sides.

Then, on the lower East Side there is another type, where the people actually live in a room behind a partition, or in a small room behind the front room. In that case, a part of the room is partitioned off and used as a kitchen.

Q. How about the cleanliness of these people? A. These people are very dirty.

Q. Very dirty? A. Yes, sir.

Q. And how about the toilet in that case? A. Well, it depends; uptown it is generally in there; downtown, for the tenement house, it is in the hall, or perhaps connecting with the kitchen.

Q. Do these tenement house laundries employ girls? A. No, only men.

Miss DREIER: These people that they employ are not compelled to live there?

The WITNESS: Generally the man who lives there does the most of the work.

Miss DREIER: I see. And are girls not used at all?

The WITNESS: Not at all.

The CHAIRMAN: Did you say that in these laundries the ceiling was below the grade of the sidewalk?

The WITNESS: There were windows opening on the street, but below the level of the street; small windows.

The CHAIRMAN: Opening into an area-way?

The WITNESS: Yes, sir.

Mr. ELKUS: Are there any other questions?

The CHAIRMAN: That is all.

Mr. ELKUS: Thank you very much—we will have you again.

JOHN H. VOGT, a witness, called and being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Where do you live? A. 87 Grant avenue, Brooklyn.

Q. With what Department are you connected? A. The State Department of Labor.

Q. Have you been assigned by the Labor Department to this Commission? A. I have.

Q. Have you made investigations under the direction of this Commission? A. I have.

Q. What particular business or trades have you investigated? A. The chemical industry.

Q. Where? A. In New York; the five Boroughs.

Q. How many establishments have you investigated yourself, personally? A. Fifty-eight.

Q. Between what dates? A. From October 9th, until the present date, inclusive.

Q. What particular industries have you investigated; that is, you are still at work? A. Yes, sir.

Q. What particular industries have you investigated personally? A. The manufacture of white lead; the manufacture of acids, and

of salts; the manufacture of varnishes, the manufacture of colors, and several industries which, through chemical processes, are classified under the head of the chemical industry.

Q. Will you tell the gentlemen what you found, and then give us specific cases? A. Taking up the white lead industry, first, I visited three shops, some of which are conducted in a hygienic way — as hygienic a way as it is possible to do; and others, of which there are a great many, cannot be called so. I found in one of them, upon questioning, that nearly all of the workers had, at some time, lead poisoning. In this particular establishment, they provided a washroom, toilet, hot water services, and they have signs up calling attention to the danger from the manufacture of white lead.

Q. Is this what you call “good establishment?” A. Yes, sir.

Q. Where was that located? A. That is in Long Island City, on Vernon avenue.

Q. Yes. A. They have signs up calling attention of the workers to the dangers. They have means of ventilation, forced ventilation, both local and general. They permit no eating of any kind, and they close their establishment ten minutes sooner to give their workers ten minutes for washing off prior to going out. They also give them a suit of overalls which belongs to the firm; it is the property of the firm. I made some tests in that place for hydrated carbon of lead, and I have the results.

Q. What is the object of the test? A. The object of the test is to determine as to whether there is any floating material in the atmosphere generated in the process of manufacture.

Q. And if there is such material in the atmosphere, that is swallowed, and then what is the result? A. The result is deleterious to the individual; very much so.

Q. What test did you make? A. I aspirated a known quantity of air through doubly distilled water, and then I made colorimetric test, by comparing the color with known quantities of light, the colorimeter. That can't be weighed gravimetrically, because the portions are too small.

Q. Did you find any material in the air by these tests? A. There were some in that place.

Q. How was the ventilation in that place? A. They had general means of ventilation in several places, and they also had local

means of ventilation. By local means, I mean the removal of material at the point of origin, as far as it was possible for them to do.

Where they were manufacturing red lead and litharge, I could find no trace at all, after aspirating 350 meters of air through my solution.

Q. Are you a chemist by profession? A. I am; yes, sir.

Q. Are you a graduate of a college? A. Yes, sir.

Q. Which one? A. Adelphi College in Brooklyn, and Cooper Institute in New York.

In the comparison I made a series of tests in an establishment on Staten Island where they manufacture white lead and the same precautions are not taken in that establishment as in the one I mentioned before.

Q. Before we get to that, have you finished your description of what you have described as being the good one in Long Island City? A. If you want the process of manufacture, I can give you that.

Q. I wish you would explain the process of manufacture. A. The lead is brought in in paste, small bars, about eighteen inches long. They are put into a furnace, ground up, and through a mechanical device, small discs or gratings are cast.

These, after they are cast, are put into a car and taken over to the corroding house. These discs are put into an earthen receptacle, with a small amount, about two fluid ounces, of two per cent solution of acetic acid, and they are piled up or at least laid on boards, and then planks covering these are placed on top of the receptacles.

Then about a foot of tan bark is placed on top of them. In this way a tier is built up, about fifteen, eighteen, or twenty feet in height. The corrosive action is allowed to go on during a period of from one hundred to one hundred and twenty days.

The acetic acid is liberated and combines with metallic lead.

The carbonic acid gas generated from the heat of the spent tan bark combines with the acetate of lead and forms a hydrated, carbonated lead. The tier of little pots are then taken down and placed in a car and taken over to the rumbling machine and the hydrated carbonated lead is knocked off of the unattacked lead.

This unattacked lead is again taken back to the molting furnace and reground. The hydrated carbonated lead is then washed through a series of five or six solutions of water, in order to free it of acetic acid that it still contains. Then there is a division process.

Q. I think you have given us a general idea of it. Now, I will ask you to describe to the Commission the other factory which you have spoken of as an example of how things ought not to be done.

A. The old touching process is used in both factories in the manufacture of it, and in the other places there were many more men who had suffered from lead poisoning than in the first place.

Q. What is the other place, and what is the locality? A. The work of the National Lead Company.

Q. Where are they located? A. On the north side of the Island.

Q. Eleventh street? A. Near New Brighton.

Q. Is that the Lavenberg factory? A. No, not the Lavenberg factory. The Lavenberg factory manufactures colors and paris green.

Q. Which one are you describing now? A. The Staten Island factory. That factory is partly wood and partly brick. It seems that they don't provide the men with the facilities there for washing and tools and overalls, the same as they do in the other factory, the Matheson factory. The tests which I made in the corroding house were higher in lead per cubic meter of air than in the Long Island City factory. Also the dumping work, that is where the corroded discs are dumped into the rumbler.

Q. How many cases of lead poisoning were there in that factory, and within what time? A. Since the first of January there have been eight cases.

Q. Nine cases? A. Eight or nine.

Q. Of lead poisoning? A. Yes, sir.

Q. What is lead poisoning? A. It is a condition which affects workers of lead factories.

Q. It is a poison, I suppose, from the way they work? A. Yes, sir.

Q. Do you understand that to be preventable by the methods which have been followed in the first factory which you described as the good factory? A. It could largely, yes, sir.

Q. Those cases of lead poisoning could all have been prevented?
A. They could; that is, I don't say all of them.

Q. Most of them? A. In some cases it is a matter simply of personal hygiene with the workers.

Q. Take up the color works, and say whether you examined any of those personally? A. Yes, I examined five or six of the color works.

Q. Tell us what you found in Lavenberg's factory on Eleventh street, Brooklyn, if that is where it was? A. Yes, sir.

Q. How many people were there working there and what was carried on, and what were the conditions which you discovered?
A. About 50 people work in the Lavenberg factory. They manufacture lakes.

Q. What? A. Lakes. Those are analine combinations with lime and aluminum, and borium.

Q. Yes. A. But they make more of a specialty of manufacturing paris green.

Q. That is a very dangerous business? A. Yes, sir; it is.

Q. To handle? A. It is first weighed, a process in which there is very little paris green evidenced on the walls or floor, but the place where paris green was apparent in the atmosphere was in the weighing room. They have no means of ventilation in the place, and the only provision they make for the workers is to provide them with respirators. They don't give them gloves; no overalls; have no washroom provided. They have no signs calling attention to the fact that the industry is a dangerous one.

Q. How about eating their meals right there? A. Upon asking the men they said they all went out, but some ate their lunch in the factory occasionally.

Q. Right where they manufacture paris green? A. Yes, sir; throughout the factory.

Q. How about handling paris green without gloves? That is dangerous to touch without gloves? A. Paris green is a powder which is naturally hard to control. It gets under the skin and is apt to cause boils. I saw a man with a number of boils on his face, and I asked Dr. Rogers, with whom I am associated in the Labor Department, if he would go over there to see this particular individual and diagnose the case, to see if it was caused by poison-

ing from paris green. When we went over there we could not find the man. Whether they got rid of him I don't know. We could not find him all through the factory.

Q. Did you have any information as to how many cases of poisoning they have had there? A. I could not get any information as to any people who had been poisoned in the factory.

Q. What nationality are the workers who are employed there, generally? A. Mostly Polish, Italians and Russian Jews.

Q. Are they lately landed, would you say? A. Some said they had worked there two months; some said they worked there a week, others said they worked there for two or three years.

There was one particular man who said he had worked there twenty years, among the paris green. There is one place in that factory which I would like to speak of, that is the grinding room where they grind chromate of lead.

Q. Chromate of lead? A. Chromate of lead.

Q. What is that? A. That is sort of lead in which chromium enters into the combination. Lead poison may be also occasioned from chromate of lead. I made a determination at that place. The floors and walls and most other places were covered with this yellowish powder.

Q. They had no overalls? A. No, they had no overalls.

Q. Those were the clothes which they went home in which they were wearing when you saw them? A. Yes, sir; I suppose so.

Q. To their wives and families? A. exactly.

Q. They carry that poison with them? A. Yes, sir.

Q. The clothes in which they ate their meals, I suppose they were? A. Yes, sir. I would like to call your attention to a factory which I visited, in which paris green is handled, and in which there is very little dust brought about by weighing out the paris green.

I refer to Bahy & Company in North Seventh Street. They have an automatic device for filling boxes. The entire machine is enclosed and there is no dust that can get out into the atmosphere whatever. The man working the machine stands outside of this little booth, enclosing the entire machine. There is very little powder of the paris green that can get out.

Q. Have they any ventilation in this place that you describe, in Lavenberg's place? A. There is no forced system of ventilation at all.

Q. How is the air in that place? A. Many windows of course were open, and they simply depend upon the natural means of ventilation.

Q. What other concerns that you examined, Mr. Vogt, and which you want to tell us about? A. I examined three varnish factories. In one place it was stated where benzine was used occasionally, that occasionally when a man has come fresh to the factory they are overcome by the fumes of benzine. They simply carry them out into the fresh air, and let them stay there a little while until they revive. When they revive they go back and work.

There is no forced system of ventilation in any varnish works that I visited.

Q. These men breathe the fumes of it? A. They breathe the fumes in fact in the thinning room, where turpentine and benzine are put.

Q. How are these factories as to cleanliness, were they clean or dirty? A. Taken as a whole, or simply an individual case?

Q. Those you have examined, take Lavenberg's, was that clean or dirty? A. Lavenberg's factory — the floors, of course, are covered in many cases with powders used in the manufacturing.

The toilets were fairly clean, as clean as could be expected of them in an establishment of that kind. In a number of cases, I have issued orders to the Department to clean up the various water closets.

Q. Did you find them filthy? A. When we find them filthy we always issue an order, on special inspection.

Q. I say you did find them filthy? A. Yes, sir.

Q. Is there anything further that you would like to tell us about, as a result of your inspections? A. In one place I visited, in which there were a few children working, it might be classified under the head of the chemical industry, in which children were filling boxes of talc.

Q. Was there any means of ventilation — where was this? A. Adams street, Brooklyn.

Q. What concern? A. I can't remember the name.

Q. Adams street, Brooklyn? A. Adams street, Brooklyn, I think it is 320.

Q. How many children were there there? A. There were two children legally employed, having their regular working papers. They were working in this dust, and I made a determination of the amount of total solid material suspended in the atmosphere, which was very high. If I remember correctly, there were 305 kilograms of total solid material floating in the atmosphere to a cubic meter of air. In comparison with that, I make a determination of total solid suspended material in the atmosphere in the factory of Enoch Morgan, manufacturer of —

Q. Sapolio? A. Sapolio, on West street, New York. They have a forced system of ventilation where they pump the silicious material, prior to combining with the liquid soap, and I found there that the conditions in using the forced system of ventilation were a great deal better than the factory in which there was no forced system of ventilation, but simply an exhaust fan.

There is one other place I would like to speak of.

Q. Yes. A. The factory over in Green avenue, Brooklyn.

Q. What kind of a factory? A. A manufacturer of pharmaceutical preparations.

Q. Yes. A. There were a large number, 41 women working in the labeling department.

Q. In the labeling department? A. Yes, sir.

Q. Putting labels on packages? A. Putting labels on boxes. I made a determination of the carbonic acid gas there, and found it quite high, very high in fact. The humidity was likewise high, and the temperature was considerably above that of the outside temperature. The temperature was 77, and the amount of carbonic acid gas in that place was thirteen.

Q. Was the place clean? A. Yes, sir; very clean.

By Miss DREIER:

Q. What is the effect of gas upon the people? A. It is apt to bring on drowsiness. The people can't work as they should. It brings on headaches and fatigue.

Miss DREIER: Was there any indication in these factories, except the very good one you mentioned, of the employer taking any pains to inform the employee of the dangerous condition?

The WITNESS: In one factory, the only place I saw in which there were any notices posted, calling attention to the dangers there, I remember was a lead works place.

Miss DREIER: That was the only one, the one you say was the good factory?

The WITNESS: That was the good factory. That was a good factory, as far as it is possible to make it.

Miss DREIER: Yes.

The WITNESS: There is an element of danger there which you cannot escape from.

Miss DREIER: In all the other factories, there were only men working, women and children were not working, boys or girls; or both?

The WITNESS: There were two children working in the factory I have mentioned.

Miss DREIER: Girls or boys?

The WITNESS: Both were girls.

Miss DREIER: Only two girls?

The WITNESS: That was all. There are very few women or children employed in the chemical industries which I have visited.

By the CHAIRMAN:

Q. Is lead poisoning the result of inhaling the fumes, the impure air? A. That is due to two causes, to inhalation of lead, and likewise getting things while eating in to the stomach, through the unhygienic habits of the people. For instance, if a man eats

his lunch without washing his hands, naturally he will take considerable lead into his stomach.

In one place I visited they believed in getting rid of the men every two or three months, when they show any signs whatever of lead poisoning, such as anemia or blueness of gums.

Q. Is that fatal? A. In some cases it is, but I have been unable to find any fatal cases from lead poisoning.

Q. You mean in your inspection? A. My inspection.

Q. You don't mean from the Medical Record? A. I simply know that, that there were no chronic cases of lead poisoning in Brooklyn, Queens or Richmond, reported to the city authorities, the Registrar of the Health Department during 1910.

By Mr. ELKUS:

Q. Did you say that they get rid of men as soon as they find that they have got lead poisoning, in one of these places? A. Whenever they show signs of lead poisoning, they did.

Q. They discharged them? A. They discharged them.

Q. How many cases of lead poisoning were there in that place that they got rid of in that way? A. They did not make any statement to me as to how many had it.

Q. Where is that place? A. That is on Long Island.

Q. On Long Island? A. Yes, sir.

Q. You don't know the name of it? A. The Matheson Lead Company.

Q. Where is it located? A. Vernon avenue.

Q. Vernon avenue, Long Island City? A. Long Island City.

Q. There, whenever they found a man had symptoms of white lead poisoning, they discharged him? A. Yes, that statement was made by the superintendent of the works, who took us through the works.

Q. How many men did they employ there? A. At the present time, it is not working with the full force.

Q. What is the number of the full force? A. They didn't give me that. I only took the number of the men at the time.

Q. How many were there then? A. Forty-two.

Q. Forty-two? A. Forty-two.

Q. Can you tell me about how many cases of lead poisoning they had there in a year? A. That I cannot tell.

Q. Did this man tell you this as a boast or what? A. Not as a boast. Simply in the ordinary course of business.

Q. The way they carry on business? A. The way they carry on business.

Q. Did he admit it himself that at one time he had had lead poisoning, but that he had not contracted it in that place; did they all tell you that? A. Exactly.

By the CHAIRMAN:

Q. They all knew who you were? A. Yes.

Q. What is your remedy to do away with these conditions which you have spoken about? Have you thought about it at all? A. I have. The best method for the preventing of lead poisoning is the compulsory use of respirators or something which will act as well as a respirator. Some of the men prefer to use a muslin tied over the nostrils and mouth, because the respirator hurts their faces.

By Mr. ELKUS:

Q. What is a respirator? I don't think we know. A. A rubber device which covers the nose and mouth, in which is a sponge moistened to prevent any material coming from outside, from getting into the lungs.

Q. You say that should be provided by the employer for the working men? A. That or some other device.

Q. They should be compelled to wear it? A. They should be compelled to wear it, or they should be discharged.

Q. Or discharged? A. Or discharged. And then in the manufacture of the lead paste, the hydrated carbon lead, the dust from white lead, before it is mixed with the oil should be removed at the point of origin, and not allowed to disseminate around the works.

Examination by the CHAIRMAN:

Q. How will you do that? A. By providing for running into a dumping car, which will dump from the bottom, or by being enclosed in a curtain, a pipe leading from the top of which is con-

neeted with an inside fan, and that would remove the greater part, nine-tenths of it. I find that is done in the color works. The color people provide a fan, thirty, forty or fifty feet distant from the grinders, and they expect that the dust will immediately travel to that fan and be removed in that way. If they had their mills and bins enclosed in glass, or in wood with doors that could be closed readily, and shoveled into the grinders, a great deal of dust would be eliminated in that way. The workers would stand outside of the mill and the exhaust would be sufficient to draw the air away from them, so that the fumes could not get to them. I made a determination in a factory in which strychnine was manufactured, and there was a forced system of ventilation, in which there were twelve or fourteen aspirating flues. The material was readily taken away, and taken away from the people working there, and their sieving was all done under cover. It was impossible to determine any stagnation present. In the same plant, Charles Fiffing Company, where salts of mercury are made, I made some tests, and I found no mercury present in the atmosphere at all.

Further, I think it should be compulsory on the part of proprietors of chemical establishments to provide proper washing rooms, towels, and allow no eating whatever to be brought into the factory. A rule of this kind should be posted, calling attention to the dangers, and furthermore, a list should be kept of the illnesses of the workers, whereby a medical inspector could determine how often such a person had been treated by a physician.

A policy of indifference and concealment is carried on through this industry, so much so that the proprietors or superintendents will say there have been no cases whatever of poisoning in this way, where, as soon as the superintendent or proprietor or person in charge turns his back, a man will say, yes, I have been sick for a period of a week, two weeks ago.

The CHAIRMAN: The Commission will adjourn to meet tomorrow at ten o'clock A. M.

Adjourned to November 16, 1911, at 10 A. M.

**MINUTES OF THE HEARING OF THE NEW YORK
STATE FACTORY INVESTIGATING COMMIS-
SION, HELD IN THE CITY HALL
NOVEMBER 16, 1911,
AT 10 A. M.**

Present:

Senator ROBERT F. WAGNER, *Chairman,*

Senator C. M. HAMILTON,

Assemblyman ALFRED E. SMITH,

Assemblyman C. W. PHILLIPS,

Miss MARY E. DREIER,

Commission.

Appearances:

ABRAM I. ELKUS, Esq., and BERNARD L. SHIENTAG, Esq.,
of Counsel.

Mr. SHIENTAG: Owing to a friend's serious illness, Mr. Elkus will be unable to remain here this morning, and Mr. Elkus has asked me to examine Mr. Schram, of the National Civic Federation, and Doctor Tolman, and then with the approval of the Chairman, we will take an adjournment until two o'clock this afternoon.

LOUIS B. SCHRAM, a witness, being first duly sworn,
testified as follows:

Examination by Mr. SHIENTAG:

Q. What is your business? A. I am president of the India Wharf Brewing Company.

Q. In this city? A. Yes.

Q. Are you connected with the National Civic Federation?
A. I am.

Q. In what way? A. I am chairman of its committee on the improvement of factory inspection.

Q. And you have been such chairman how long? A. Only recently.

Q. Have you been a member of that committee before that time? A. Yes, I have been a member of that committee ever since its organization.

Q. How long ago was that? A. I do not recall, I should say about two years.

Q. And during that time have you given considerable thought and study to the subject of factory inspection, and accident prevention? A. Yes, sir.

Q. Will you tell the Commission whether you consider the present system of factory inspection in this city and State adequate, and state your views, generally, on that subject? A. I do not consider the present system of factory inspection adequate, but I believe that with the changes made during the last session of the Legislature, we are likely to have a complete and satisfactory system of factory inspection.

Q. You mean, with the assistance of the supervising inspectors who were appointed? A. Yes, sir.

Q. Do you think that the number of inspectors ought to be increased in the State of New York, or do you think the Commissioner of Labor has, at the present time, a sufficient force to do the work? A. I do not know whether the forces at the command of the Commissioner of Labor at the present time are sufficient. I think that he ought to have a larger staff, a staff sufficiently large to make inspections of all manufacturing establishments at frequent intervals.

Q. How frequent should these intervals be in your opinion, generally speaking? A. Once a month, surely.

Q. In your opinion, then, every factory or manufacturing establishment should be completely inspected at least once a month? A. Yes. I think that after the first thorough inspection is made, subsequent inspections would take very much less time.

The subsequent inspection should be with a view to ascertaining whether the defects that have been discovered at the first thorough inspection have been remedied.

Q. Will you tell the Commission, Mr. Schram, how, in your opinion, the services of inspectors with some technical knowledge can be secured? Have you considered that matter at all? A. I have not considered that matter to any great extent. I presume the method should be the same as is exercised by a business man when he selects his employees—careful investigation of their fitness for the purpose for which they are to be used.

Q. I suppose you know that the salary of an inspector in this State is about \$1,200? A. Yes.

Q. Do you think that the Commissioner of Labor can get men who have some familiarity with the technical aspects of factory inspection for that salary, or would you recommend an increase? A. I think that amount of salary is rather meagre. I do not know whether a sufficiently large number of inspectors could be secured at that compensation. I believe, however, that the securing of satisfactory inspectors will be a matter of evolution. That is to say, that the men who are first secured will learn in the course of their work, will develop, and increase in efficiency in the course of their work. I think it should be the object of the supervising inspectors to be instructors of the inspectors, to train them for their work.

Q. You would say, then, that there should be some sort of a graded increase in salaries from time to time? A. I have not thought over that a great deal, but it strikes me that that would be a satisfactory arrangement.

Q. Have you given any thought, Mr. Schram, to the present duplication of inspections? A. Yes.

Q. Of factories and manufactories both in the city and in the State? A. Yes.

Q. Will you tell the Commission how you think that can be avoided, or done away with, in part, at least? A. The duplication of inspections of factories is a deplorable condition. At the present time, the employer does not welcome the inspectors. He has not, as a general thing, been educated up to the point where he will get some day, we hope, that is, that he will invite inspec-

tion. There is not that amount of co-operation which is necessary to produce the best results, and naturally that feeling is emphasized by frequency of inspections, especially inspections from different centers. I think that the factory inspection ought to be under one responsible head, and the inspectors ought to be sufficiently able, sufficiently trained, to readily detect infractions or violations of laws or rules which are under the supervision of other Commissions, or responsible bodies. Then the factory inspector could report the infractions which he found, which could be taken up and cared for in the natural course.

Q. It has been suggested to the Commission, Mr. Schram, that it would be advisable, for example, to establish a Bureau of Inspection, whose entire function and duty it should be to examine into the conditions in factories, ascertain the facts, and report those facts to the different city Departments, or State Departments responsible for the enforcement of the law applicable to the state of facts reported. Would you favor the establishment of such a bureau? A. Absolutely.

Q. Do you think, Mr. Schram, that one inspector, for instance, would have sufficient technical knowledge, or practical knowledge of the subject to cover three or four different aspects of the problem, taking, for instance, sanitation and fire prevention, things of that kind? A. Possibly not, but I do not think that would be an argument against the proposition which you mention. The various city Departments which now cover a wide field, have inspectors who are specialists in various Departments which that bureau covers. And these various inspectors are used for the purpose of finding violations of rules or of regulations, and in that way, this Bureau of Inspection, which you have mentioned, should have a staff of inspectors sufficiently varied in their attainments, that could be used in this manner.

Q. You think then, that the Bureau of Inspection could be divided into a number of divisions, with different types of inspection in different divisions? A. Yes, I think so.

Q. It has been suggested by some of the witnesses called, that the city Departments would place very little reliance on the reports of the Bureau of Inspection, but they would want to verify those facts themselves before they took action. What would you

say as to that, Mr. Schram? A. I do not know why that should be so. Experience would very soon show whether this Bureau of Inspection was doing efficient and satisfactory work, and would demonstrate whether the various city Departments should or could rely on their reports.

Q. You would favor, then, the establishment of such a Bureau of Inspection? A. Yes, sir.

Q. You have undoubtedly devoted considerable study and thought to the causes of accidents? A. Yes.

Q. What, in a general way, would you say, were the causes of industrial accidents in factories and manufacturing establishments? A. That is a very broad question. Insufficiently safeguarded machinery is a very large cause for industrial accidents. Weariness of the worker from over-work, overtime, is also a large cause. That is shown by the fact that our investigations show a great number of accidents happen shortly before the noon hour, and shortly before knocking off work in the evening, that is, at times when the worker has become tired. Then, other causes are, poor sanitation, improper placing of machinery.

Q. Have you considered the effect that poor ventilation has on industrial accidents? A. We have considered that. There is no question but that is one of the contributing causes.

Q. How can the causes of industrial accidents be fully ascertained? A. By systematic reporting. By careful inspection, and systematic inspection and reporting. Systematic inspection, of course that is self-evident, by investigating the conditions of the factory, and the nature of the machinery employed. Safeguards should be attached to the machinery in order to make its operation safe. The proper placing of machinery is one thing that can be readily and intelligently inspected, but the fundamental aid in ascertaining the causes of industrial accidents is systematic and thorough reporting of accidents. The reports of accidents should be so complete that each individual report will show why this accident happened. Not only the nature of the accident, the amount of injury inflicted, but also why this accident happened. Then, a tabulation of these reports over a sufficient length of time, and a study of that tabulation would go very

far towards giving a clue to the causes for those accidents, and the remedy for their prevention.

The CHAIRMAN: Like the fire insurance companies do to-day, by collecting their experience over a number of years?

The WITNESS: Yes, and the wider and broader these reports are, and the more uniform the statements are — which ever you choose to call it — why, the reports will be made the better, and the more complete will be the information conveyed.

The CHAIRMAN: You mean, uniform throughout the United States?

The WITNESS: Uniform throughout the country. The Civic Federation is working to that effect, and has prepared a schedule which is rather lengthy — and that is a serious objection which is made to it — which, if adopted throughout the country, or something similar, something corresponding to it, and thoroughly enforced and carried out, will, in the course of time, I believe, offer a solution of a great many questions that at present are vexed questions, and on which the experts do not agree.

Mr. SHIENTAG: Have you a copy of that?

The WITNESS: Yes, I have.

Mr. SHIENTAG: The proposed uniform draft?

The WITNESS: Yes.

(Witness produces copy of uniform draft above referred to.)

STANDARD BLANK

FOR

Reporting Industrial Accidents by Employers and Liability Insurance Companies to Federal Departments and Wherever Federal Jurisdiction Applies and to State Bureaus of Labor.

Recommended by

LOUIS B. SCHRAM, Chairman
Committee on State Inspection of Factories
Department on Compensation for Industrial Accidents and Their Prevention

THE NATIONAL CIVIC FEDERATION

New York

IMMEDIATE REPORT OF ACCIDENT

No.....

(Report to be stamped with serial number)

Name of employer

Street address { City { State {
.....

(Office and factory addresses if at different locations)

Nature of business.....

Number of employes: Men..... *Women.....

Description of Injured Employee:

Name Sex..... Age.....

Parent or guardian, if minor.....

* * General tendency to increase age limits as to employment of children to 14 and 16 years, past the age of maturity, permits elimination of term "female."

Nativity
(Day, month and year of birth and country)

Can injured employe speak English Understand it

Home address

Hospital address

Name and address of physician treating the case

Usual occupation

Precise occupation when injured

How long employed at such machine or occupation preceding in-
jury

Skilled in this work

How long in employ of concern

Average weekly wages Daily hours of work

Description of Injury:

Date and exact hour of accident

Date notice of accident was received by employer

Department in which accident occurred

Fatal, severe or slight injury

Nature of injury

(As far as possible follow physician's statement)

Is injured employe able to continue work

Probable period of disability
(In weeks and days)

Date of death

Description, giving cause fully, of accident.....
.....
.....
.....
.....

The Machine, Appliance or Object Immediately Causing Accident:

Name of machine, tool, device or other object.....
In whose control at time of accident.....
By what kind of power moved.....
Was machine provided with proper safeguards.....
Were such safeguards properly attached at time of accident....
If not, by whom removed.....
Was the danger point made conspicuous by painting red or other
contrasting color
Was work place well lighted { By natural light.....
By artificial light.....
Is tool and equiqment inspection provided for by employer.....
When was the machine, tool, device or other object inspected....
..... By whom.....
Nature of last inspection report.....
Was injured employe instructed in use of machine, tool or device;
as to cleaning when not in operation; how to shut off power
quickly, etc.
.....
By whom so instructed.....
Were the instructions fully understood.....

Suggestions for Prevention of Similar Accidents:

.....

Date.....

Report made out by.....

Whose position with.....

(Name of Employer)

Is:

(State whether owner, lessee, superintendent or who)

NOTE: Each accident or fatality must be reported on a separate blank, accidents resulting in *death* to be reported *immediately*. This form is to be used in reporting all accidents.

Address all reports to.....

(Commissioner of Labor.)

.....(City)

.....(State)

(Or name and address of Federal official to whom report is made.)

(See other side of this sheet for provisions of the law relating to reporting of fatalities and accidents in factories.)

.....
(Above line should be perforated so as to make possible easy detachment of Supplementary Report.)

SUPPLEMENTARY REPORT OF ACCIDENT

NOTICE: 1. Employer will detach *Supplementary* Report Blank at time of making out *Immediate* Report unless injured employe has already returned to work; *First*, however (in order to prevent clerical errors in records later), *inserting therein the* (a) name of employe and (b) serial number of *Immediate* Report and the date thereof.

2. (a) When injured employe returns to work or (b) at the expiration of three (3) months following the accident, *Supplementary* Report is to be forwarded to

.....

(Commissioner of Labor.)

.....(City)

.....(State)

(Or name and address of Federal official to whom report is made.)

No.

(Number to be duplicate of that on original report)

Name of injured employe.

Where taken after injury.

When did he return to work.

If not working but able to work, when did disability end.

If still disabled, how much longer is disability expected to last. .

.....

(In days, weeks and months)

Dates of beginning and end of *subsequent* idleness due to *later*
effects of injury.

Was death the ultimate result of accident.

Partial Disability:

What proportion of his full week's wages was paid injured em-
ploye

Detail the changes, if any, in this proportion during period of
disability

How many weeks were less than full wages paid.

Permanent Disability:

Name of maimed member. Nature of injury.

Name of impaired faculty. To what extent impaired.

Name of faculty *lost*.

Number and kind of limbs lost.

Right or left. Entire or what part.

Number of eyes lost. Right or left.

Number and names of fingers lost.

Entire or what part.

Number and name of toes lost.....

Entire or what part.....

Stiffening of cords.....Joints.....Muscles.....

Exact description of permanent internal injury.....

.....

Date.....

Report made out by.....

Whose position with.....
(Name of employer)

Is
(State here whether owner, lessee, superintendent or who)

(Reports to be printed with copying ink.)

INSTRUCTIONS.

FOR FILLING OUT ACCIDENT REPORT BLANKS.

NOTE.—No statement contained in this report is admissible in evidence in any action arising out of the death or accident therein reported, and each report is to be regarded as confidential information furnished to the proper official for statistical and remedial purposes only and not to be divulged. (The above presupposes the inclusion of such a clause in the act making mandatory the reporting of accidents.)

(1) Answer every question. Be careful not to omit address as well as name of employer and to give the number of employes.

(2) The Immediate Report is to be sent within forty-eight hours, not counting Sundays and legal holidays, after occurrence of an accident.

(3) In all correspondence be sure to mention the NUMBER OF THE REPORT in question. (See upper left hand corner.)

(4) Each accident or fatality must be reported on a separate blank, accidents resulting in DEATH to be REPORTED IMMEDIATELY. This form is to be used in reporting all accidents.

(5) Wages are to be given BY THE WEEK. Where employes are paid otherwise than by the week, give average earnings per week.

(6) If the injured has not returned to work at the time of making the main report, the supplementary report is to be detached, retained until the employe returns to work, or until the end of three months. If he has not returned within that time, then it is to be filled out and sent in. (To avoid error, fill in the name of the injured and the serial number of the accident before detaching the Supplementary from the Immediate report.)

(NOTE.—The matter of a printed form for filing information purposes to go on the back of the blank is left to the judgment of the individual Federal official or State Commissioner of Labor.)

By Mr. SHIENTAG:

Q. Do not you find that when it comes to reporting accidents the employers are extremely reluctant to state the facts, especially under our modern system of compensation for fault only? A. Yes, that is true, and it should be part of any legislation on this topic that information obtained through these reports should not be evidence in damage cases or in criminal prosecution. In other words, the employer should not be called upon to furnish evidence against himself. I think that this feeling of opposition, or at least, lack of co-operation on the part of the employer is susceptible to correction to a great extent, if we succeed in securing the right kind of inspectors. At the present time, employers naturally look on inspectors as somebody who goes to find fault; that he is going to make him do something that he does not like to do, or that is going to involve him in some expense. The fact is, that the employer can readily be made to understand that by being taught how to prevent accidents by the introduction of safeguards, which, as a general thing, are connected with trifling expense, he saves himself enormous expense, trouble and bother, and loss through damages. If he understands that, he will readily co-operate in a plan of that kind, and that consideration is largely dependent on the intelligence and tact of the inspector.

Q. Do you think, then, that the inspector should be an adviser and counsellor, rather than a policeman? A. I think so. I think that the first duty of an inspector when he comes into a factory is to get himself right with the employer.

Assemblyman SMITH: What do you know about the present group of factory inspectors?

The WITNESS: Not a great deal. In our own establishment I come in contact with them frequently. They appear to be good men, anxious to do their duty, but I do not think, as a general proposition, they appreciate the fact that they should impress upon the employer the desirability of co-operating with the factory inspector.

By Mr. SHIENTAG:

Q. Do you think, for instance, that it would be advisable for the Department of Labor to issue circulars and bulletins from time to time, calling the attention of employers to safety devices?

A. Yes. I think that would be a good way. I think in connection with the Museum of Safety, which advocates a course of lectures, illustrated lectures, that that would be another way in which the safety problem could be helped along very materially.

Q. You spoke of the Museum of Safety. Your organization advocates the establishment of such museums? A. We very strongly advocate that. There is nothing that is so instructive as actual observation of a thing in action, and, as I have said, the introduction of the safety devices, as a general proposition, is connected with very small expense, while I believe that the manufacturer to-day believes that if he were called upon to protect his machinery, he would have to go to large expense. This Museum of Safety could be connected with a course of lectures and general explanation, instructions which would be a great help.

Q. Do you think the Museum of Safety should be a State institution, part of the Department of Labor, or a private institution?

A. I believe it should be a State institution. I think, after all, possibly that would be the best solution. I do not think that we should jump into that at once. I believe there is a Museum of Safety in the city of New York now, conducted by the Society of Mechanical Engineers.

Q. Of which Doctor Tolman is the director? A. Yes, and which I think is doing good work. Possibly the Museum of Safety should be on a somewhat larger scale, and should show not models of machinery, not working models, but actual machinery in operation.

Q. Showing the employer how he could safeguard the lives of his employees? A. Yes.

Q. Do you believe, Mr. Schram, that the Commissioner of Labor should have the power to make rules and regulations covering the subject of accidents, and the prevention of accidents in different industries? A. On the general question of policy, I am not prepared to say. I know the present Commissioner of

Labor, and I would be very glad to entrust him with that duty and that responsibility.

Q. Instead of entrusting the Commissioner of Labor solely with that duty and responsibility, would you recommend the appointment of an Advisory Board of technical experts, who would frame the rules and regulations with the approval of the Commissioner of Labor, and revise them from time to time? A. Probably such a course would commend itself more to manufacturers in general, they would feel more safe. I think there is a general reluctance on the part of employers, manufacturers in general, to be at the mercy—that is rather a hard term to use—of any individual. I think a reviewing authority or a consulting authority, composed of disinterested men, would probably be welcomed by them.

Q. An unpaid board of technical experts? A. Yes.

Q. Do you think you could get an unpaid board of highly qualified men? A. I believe so. We have a great many public-spirited men in all walks of life.

Q. Would you recommend any changes in the provisions of the labor law relating to accident prevention? A. Yes, sir; we have at present section 81 of the Labor Law, which provides for safety appliances. I believe that that is rather incomplete. It could be amplified to a considerable extent so as to cover machinery more widely than it does at the present time.

Q. Have you any suggestion to make concerning the revision of that section? A. Not at this time. A committee of the Federation, of which Mr. Phillips is Chairman, is considering that matter now, and is preparing a model safety appliance act, which the Civic Federation proposes to recommend to the Legislatures of all the States.

Q. Do you think, Mr. Schram, that the law should make mandatory the maintaining of a light in front of every elevator opening? A. I cannot go into the details sufficiently, as a general proposition, it strikes me as a proper thing to require.

Q. You have not gone into the subject of elevator accidents, have you? A. No, I believe Mr. Phillips' committee is designed to take that up.

Q. Would you favor, Mr. Schram, a registration of factories and manufacturing establishments? A. Yes.

Q. Would you also favor the mandatory requirement that plans of every factory and manufacturing establishment be filed and approved, and permit issued, before the factory is permitted to be opened? A. I am not prepared to answer that. The reason why I answered your other question without hesitation promptly was that it seems to me the only method that opens the way for complete inspection and supervision over factories. As a general proposition, I do not hesitate to favor it, while, when you go further into details, I must say that I have not sufficient knowledge on the question, to know about that.

Q. Do you think that a responsible authority should be notified as soon as any factory or manufacturing establishment is opened, so that it can be promptly inspected? A. Yes.

MR. SHIENTAG: Is there anything the Commissioners would like to ask?

By Miss DREIER:

Q. I want to ask how, in these accidents, we can guarantee the truth coming from the employees; for instance, how can we feel sure that they are reporting accurate information? A. I cannot say how you are going to make sure of truthful answers to these questions. I feel that as a general proposition, in a great majority of the cases, the questions will be answered truthfully.

Q. Do you think there is any danger of employers who are unwilling to give correct information informing their employees that they will lose their positions if they tell about it? A. If that danger exists at all, it is subject to elimination in the way I have indicated. That is, in the first place, by convincing the employer that the information elicited cannot be used in a court of law, either in a damage case or in a criminal prosecution, and furthermore, by the employment of tactful inspectors who will show to the employer, not only that it is his civic duty to co-operate, but also that it is to his material interest to co-operate. I think that danger, if it exists to any great degree, will before very long be eliminated.

Q. It would be, of course, if we had an employer's liability law which acted automatically? A. Yes, which eliminated the

question of negligence, or compensation for accidents, naturally then it would disappear.

By the CHAIRMAN:

Q. Do you know that in all European countries, almost, a system of licensing factories before they can be opened for any particular use, is in vogue? A. I know it is largely in vogue.

Q. Have you ascertained at all how that works out; made any study of it? A. I have studied the system as it exists in Germany, principally with a view to the compensation laws in this country, and I know that their compensation system has resulted in a great diminution of accidents. Automatically, it has worked that way, and I think that a similar system would work the same way with us. I understand the German system, which is practically a compulsory insurance by the employer — under that system the premium which the employer pays is based to a large extent upon the seriousness of the accidents which occur in his establishment, and therefore the fewer accidents he has, the less it costs him to insure against accidents. That is a great element in the improvement of factory conditions in Germany.

Q. Do you not think that the licensing of factories would be apt to insure more perfect inspection? A. I do not know how the licensing would.

Q. Would not a man know that he could not get a license until after the place had been inspected and it had been ascertained that the place absolutely complied with the law, and if the securing of a license depended on that inspection, would he not be apt to have his place absolutely comply with the law? A. I suppose that is so.

Q. More so than where there is an ordinary inspection of an inspector just walking in and looking around and then walking out? A. It is, of course, to a large extent, a question of right administration.

By Miss DREIER:

Q. You spoke of overtime and weariness of the workers as part of the cause of accidents. Do you advocate the limitation of

hours at all? A. Well, I think that overtime work ought to be under some sort of supervision. I think where in any industry, dangerous machinery is employed, overtime work ought to be carefully supervised, because — I know from statistics that we have gathered, that weariness of the workman is responsible for a very considerable number of accidents.

Q. Have you found it is true that if workers are employed overtime and required to come back the next day to work again, that their work is poor the following day? A. I think that is true.

Q. You have not any statistics, any facts as to that? A. No statistics on that.

(Witness excused.)

WILLIAM H. TOLMAN, a witness, being first duly sworn,
testified as follows:

Examination by Mr. SHIENTAG:

Q. You are the Director of the American Museum of Safety?

A. Yes, sir.

Q. Will you tell the Commissioners what the American Museum of Safety is, and what it does? A. Yes, I am going to do that, and illustrate that with the pictures concretely. If I may, I will do that in my picture talk. That will visualize it. Now, here is a volume (witness indicates book), which I brought down, of about 1227 pages. It represents twenty-five years of accident prevention. This is practically a dictionary of safety. It represents twenty-five years of the practical reports on the subject in Germany. It has been prepared by their inspectors. As you know, Germany has sixty-six trade associations. Each one of those has one or more factory inspectors. They are highly trained technical expert men who go into the factories and make the inspections, and then make recommendations — men who can prepare a report like this. That is the way Germany does it. That is a practical method for safety. I just want you to observe that.

Q. Do you think our inspectors are sufficiently expert to make any such report? A. Many of them are not.

Q. How would you suggest that our present system of inspection be improved? A. In general, they ought to pay more. Paying more money, you will get expert technical service.

Q. Do you think the Commissioner of Labor ought to have technical experts outside of ordinary inspectors in his Department? A. He ought to be able to get a body of inspectors who have technical knowledge, so that when they go into a factory they will know what they are looking for, and what to suggest.

Q. But every inspector cannot be an expert. But you think in addition, experts with technical knowledge ought to be employed in the Department of Labor? A. Yes, and that would be exactly the point where the Museum of Safety could apply. Supposing you have a technical problem to work out in connection with men working on iron or steel, or men who are working on woodwork, and you have got a Museum of Safety, then you can call on your experts and you can put the problem before them, and the experts can give definite recommendations as to that particular problem.

Q. I do not want to duplicate what you intend to cover in your lantern exhibit, but I would like to ask now whether you think the Commissioner of Labor ought to be given the power to make rules and regulations, whether the Commissioner himself ought to make the rules and regulations, or whether you think there ought to be an unpaid Advisory Board? A. It seems to me you could do both. That is exactly one function of the Museum of Safety; to gather all information based on experience, and place it at the disposal of the Commissioner of Labor, or any Department that desires to have it.

The CHAIRMAN: Do you suggest that the Museum of Safety should be part of the State Department?

The WITNESS: Have the Museum of Safety so that the Department of Labor or any other Department which sought to draw on it might do so, so that it would practically be at the service of every branch of the State. Any manufacturer, for instance, suppose there was a State printer, could draw on it for devices, for an inspection of any part of his plant.

By Miss DREIER:

Q. So that if a man wanted to establish a printing business, he could go to the Museum of Safety and get advice as to the best way of establishing a safe plant? A. And could see there every phase of making his plant safe, as, for instance, the present kind of case which is broad at the bottom, is being covered with perforated metal, so that the dust and air can get through. At every point, we are making a point of making it as safe as possible.

Assemblyman SMITH: Are you in any way familiar with the present method of examining the applicants for factory inspectors by the Civil Service? A. We are laying stress entirely on the phase of prevention. They are working out the problem of inspection. But our stress is laid on preventive measures. We go back to the legislation to bring about safety, for the prevention of accidents.

Mr. SHIENTAG: Do you consider the prevention of accidents in manufacturing, from handling the product, from flying particles of dust, and things of that kind?

The WITNESS: We consider specially what we regard as of equal importance with prevention, the matter of occupational disease. We are concerned with lengthening the life of the worker.

The world movement for safety which has taken twenty-five years of practical application to bring to its present state of high efficiency in European mills, factories, and work shops, has found expression in the establishment of great Museums of Safety in the following cities: Berlin, Munich, Vienna, Paris, Amsterdam, Milan, Moscow, Zurich, Stockholm, Copenhagen, Helsingform, Budapest, Dresden and Gratz. There is one museum in Canada.

The Amsterdam Museum of Safety illustrates ideal co-operation which could very well be applied to our country. The city gave the land, the state the building, and private contributions its maintenance. Quoting from the speech of Loubet, then President of the French Republic, in presiding at the inaugural of the Paris Museum of Safety, splendidly housed in the National Conservatory of Arts and Trade, "Never does one appeal in vain in

France, when it is a question of social usefulness. Thus the government of the Republic is associated with this Museum. How could it be otherwise for this work, protecting and lengthening the life and labor of our workmen, is a most valuable asset for our country, and you may be sure," he continued, "that whenever a work of this nature is presented for governmental consideration, it will support it with grants of money."

The Museum of Safety and Industrial Hygiene at Dresden, is the direct out-growth of the wonderful specialized International Exposition on these two subjects which closed the first of this month. During the six months it was open, it was visited by upwards of 5,000,000 people. It was a colossal educational work and I was particularly impressed by the large attendance of the working classes, examining with keen interest the safety devices for protection in their trades and the methods for preserving their health, thereby maintaining their wage-earning efficiency.

The American Museum of Safety, the twelfth in this series, like many of the Continental Museums, was the result of two Expositions of Safety in New York, the first in 1907, lasting two weeks, the second in 1908 of two months' duration. This led to the formal organization of the American Museum of Safety, the first and only concerted effort to bring together collections of actual devices, models and photographs with their interpretation or practical application to the needs and conditions of the American shop practice. The American Museum of Safety now holds a special charter of incorporation granted by the Assembly and Senate of State of New York. Its headquarters are in the Engineering Societies building, 29 West 39th street. Our quarters are already outgrown and immediate expansion is imperative, to provide for the waiting list of valuable exhibits and the increasing demands for detailed safety information.

The Museum, like all the others, is absolutely non-commercial. No orders are taken, no exhibits are sold, nor does it engage in the promotion of any device. The majority of the exhibits are non-patented, hence available for all. No exhibit is accepted, unless it has a safety feature and is passed upon by the Board of Approval, consisting of experts in the various industries. There is no charge for space; all demonstrations are made by its own staff and it is free to the public.

According to chapter 152 of the laws of 1911, of the State of New York, it is incorporated. In furtherance of its purpose it has organized the Iron and Steel section under the chairmanship of Charles Kirchhoff. Here may be found every phase of safety devices actually in use in the iron and steel and allied industries; blast furnaces, open hearth, bessemer, blooming, rail, skelp, slabbing, galvanizing, pipe and wire mills; power stations, yards, shops; electricity and transportation. These collections are being studied by engineers, factory inspectors, and foremen, who make drawings and tracings for use in their own plants.

By special arrangement, evening conferences have been held at the Museum, with the New York Commission of Labor and forty-three inspectors, the Iron and Steel Electrical Engineers, the du Pont Powder Works' Superintendents, Engineers and Chemists, New York Section of Institute of Mining Engineers, National Electric Light Association, Midvale Steel superintendents and foremen, Society of Hungarian Engineers and the Committee of the United States Steel Corporation.

The Museum's library contains the most highly specialized collection in the country of books, pamphlets, photographs, lantern slides, and special reports on safety. These are the facilities to be enjoyed at the Museum's headquarters. On its extension side may be mentioned: Field work, by means of free illustrated lectures on accident prevention before Chambers of Commerce, Boards of Trade, Businessmen's Associations, State Bureau of Labor, Technical Schools and Colleges, Insurance Companies, Labor Organizations, Employers' Associations, Scientific Societies and industrial plants.

The Iron and Steel Section alone has conducted an educational campaign at mills and plants, where superintendents, works managers, engineers and foremen have assembled to learn what has been accomplished through the introduction of safety devices in their industry. In some instances the meetings have been limited to the personnel of the particular plant, no men under the grade of foremen being present. These audiences have ranged from 300 to 2,100 men, and all have been impressed with the simple and practical character of the safeguards.

Through its publications, the Museum takes to the industrialist, the experience of the best safety practice in our own and other

countries. Safety Manual No. 1 deals with the *prevention* of excessive *alcoholism*, No. 2 will illustrate safety in the Iron and Steel Industry. Safety Leaflet No. 1, Presses and Punches; No. 2, Safety for the Molder, Industrial Hygiene Leaflet No. 1, Emergency Aid.

The promoters of the Museum feel that their continuous, concerted educational work has been a large factor in focussing the attention of our country, upon the need of the more adequate adoption of safety devices and the provisions for industrial hygiene and the organization of special state commission for the study of these questions.

It is, therefore, impossible to estimate the wide reaching influence of the inspirational force of the American Museum of Safety.

Through its special report service, based on the researches of the Director at original sources in Germany in 1910, a report on the German system of Workmen's Insurance, one hundred and fourteen typewritten pages was prepared. For 1911, the report was made on Accident Prevention at the International Exposition of Industrial Hygiene at Dresden, 1911. This volume of one hundred and fifteen typewritten pages was fully illustrated with photographs and charts.

By means of its other special report service, technical descriptions of accident preventing devices are brought to the industrialist.

(The lecturer then illustrated his remarks with a lantern photograph of Special Report Service, subject: Boiler Valves, No. 367, Date, Nov. 15, 1911. Description of Safety Device.

On its international side, the Museum has sent exhibits and reports to a number of International Expositions and Congresses.

At the latter exposition, the Museum's exhibit was the only one to show what our great country is doing in the conservation of human life, through the prevention of accidents.

The superintendents of two large plants, including some 15,000 workmen, confirmed the statement of the Museum, that one-half of the industrial accidents in our country are preventable. "We know it," they said, "for we have done it at our plants," one

superintendent saying, "I have cut down my accident list more than 60 per cent."

The attention of the superintendent of a plant employing some 6,500 men was called by the Museum to the safeguard of a protecting collar for grinding and polishing wheels, so that in case the wheel burst, the fragments would not scatter, but be held in place by the collar. The following photograph shows one of three great wheels which had burst, but no accident was caused, thanks to the safety collar. Without such a safeguard, it would be easy to imagine the deaths and maimings in a shop full of workmen.

The same superintendent sent a committee on a three weeks' tour of investigation regarding safety devices in western mills and plants. His representatives, coming to the Museum, remarked, "I learned more of simple, practical safety devices by my first visit to the Museum than I obtained from the collective experience of the three weeks' tour of our inspection committee," referred to above.

(Here lecturer illustrated a view of the burst wheel.)

In 1906, the pay-roll of an iron and steel plant numbered 6,000. During the year, there had been no special provision of safety devices. The fatalities were 47. In 1909, after the introduction of a safety committee, which had been closely in touch with the Museum, out of a pay-roll of 7,000, the fatalities were 12. Of this number, one death was caused by a man carelessly stepping in front of a passing car. Five other deaths happened from causes for which no possible explanation could be made, in other words, real accidents.

"We believe that we can reduce our accidents one-half," said the superintendent of a large transportation company, and I have come to the Museum to learn how to do it."

A special report was made for him, covering the various classes of accidents, and there is every reason to suppose that saved lives, uninjured limbs and maintained health are the result in his plants, including some 89,000 workmen.

The lecturer then illustrated his remarks with a lantern photograph of specimen illustrations from the Museum's Industrial Hygiene Leaflet, "Emergency Treatment for Wounds."

The State Bureau of Labor of Minnesota, having investigated many accidents, is of the opinion that at least one-half of those which occur in Minnesota are preventable. They inaugurated a campaign for minimizing the preventable accidents, and secured the services of the Director of the American Museum of Safety of New York for a week in St. Paul and Minneapolis.

Specimen page from the Special Report on the German System of Workmen's Insurance. Frequency of Accidents per 100,000 insured, 1909:

Falls from ladders	100.5
Caused by vehicles	64.38
Kicks and bites of animals.....	51.07
Loading and unloading	30.85
Hand tools	28.77
Motors	25.60
Collapses	24.17
Miscellaneous	23.72
Fire . . .	4.85
Explosives . . .	1.31
Railroads . . .	0.60
Lifts and hoists	0.46
Shipping	0.17
Boilers . . .	0.09

A specimen report from the Museum's Inspection Section, shows the actual conditions, and enables us to reach such employers by pointing out the business folly of allowing such a state of affairs to exist, and, if they so desire, to show remedies.

"In a town in New York State, the foundries employ some 1,500 men. Only two of these are modern shops as to their construction, but here very much more could be done for the improvement of sanitary conditions, particularly as the men in these two shops are fairly steady.

"The other shops are low, dark, poorly ventilated and overcrowded; provided with poor hoisting and lifting facilities; very poor toilets, and no washing accommodations. Owing to the excessive strain of rolling over and lifting heaving implements,

together with the above mentioned unsanitary conditions, the men are very discontented and take no interest in their work. They violate all rules of sanitary decency, bring liquor into the plant, which they drink during working hours, abuse and torment their foremen. Through such conditions, the output of these plants is needlessly restricted, and the production unnecessarily limited.

"The foremen are thoroughly aware of these facts, but feel themselves powerless and indifferent, well knowing that any action which they may take, may bring about labor troubles, the responsibility for which they will not assume. These firms not only lose the advantages of the full capacity of their shops, but also considerable loss in trade.

"The men, on the other hand, are very different, saying that if the firms do not think it worth while to give them better working conditions, they will put up with them, or get a job somewhere else. In one shop in particular, employing about 100 men, I notice that the majority were intoxicated.

"As one workman of the better sort remarked, 'Gee! I don't know how long I can stand the work in this shop. There's the biggest gang here of booze-fighters on earth, and you've got to move with the gang or you can't work with them!'

"In nearly all of the shops, the piece-work system prevails, and the men earn fair wages, nine hours a day. But the speed they have to make, combined with the steady strain and exertion put upon them, so weakens and exhausts them mentally and physically, that they seek renewed strength or relaxation in alcohol. Improved sanitary conditions would greatly lessen these evils and result much more favorably for the men and for their employers."

From this presentation of facts, the American Museum of Safety stands before you to-day, as the exponent of things done. It is the only concerted, organized effort in the United States for demonstrating at the Museum itself the use of the safeguards there collected; for bringing to the industrialists the knowledge of these devices, by means of manuals and leaflets of safety, special report service and illustrated lectures. Such an institution is available for study visits by the teachers and scholars in our public schools. Its scope is two fold, viz., the education of

the employees already at work, and the inculcation of these principles of safety and caution in the minds of the coming generation of wage-earners.

To accomplish the widest usefulness for this magnificent life saving station, so that its practical help may be brought to every man, woman and child, freely in our great State, it should be housed under its own roof, with adequate resources for maintaining at their highest efficiency, the three great departments of Accident Prevention, Industrial Hygiene and Mutuality. Such an institution should be for all; it should be free; it should be absolutely non-partisan, non-commercial and non-religious. In the establishment of this Museum of Safety for New York State and city, you, Mr. Chairman, and your colleagues, have an opportunity as never before in the history of the Western Continent, of building such a memorial with which your own names shall be identified, as will stand for all time, an object lesson to all the other States of the Union, in the conservation of human life.

We appeal to you in the name of the people of the Empire State. Now let us conserve human life.

The lecturer then illustrated the Berlin Museum of Safety with a lantern photograph.

The Berlin Museum of Security, that is a collection of devices and safeguarded machinery for the prevention of accidents to the lives and limbs of workmen, was organized in 1903 as the result of an Exposition of Safety Devices, held in Berlin, 1899, founded by the government at an expense of \$260,000.

The lecturer then illustrated the interior of the central hall of the Berlin Museum of Security with a lantern photograph.

MR. SHIENTAG: I am sure all the members of the Commission thank Dr. Tolman very much for his interesting and instructive lecture, and the trouble he has taken to give us so much valuable information. I would like to ask him one or two questions:

By MR. SHIENTAG:

Q. Doctor, you are familiar with the system of inspection of factories in European countries, are you not? A. Not in detail, only I know that they have the best type of inspection which they can get.

Q. Have they a system of registration of factories in European countries? A. Mostly they have. You see, every industrial establishment is obliged to be registered in Germany. They know exactly how many industrial establishments they have.

Q. Do they go further and require the licensing of factories and manufacturing establishments? A. There is no licensing. It is a very excellent system, I think in this way, that the responsibility for all accidents is put on the German employer. When he finds that his trade association is telling him his list of accidents is such and such and his premium is very much higher this year, he will get busy and make the plant safe. That is the reason they employ the very best men they can get in inspecting plants, and to make simple suggestions to make them safe; because the safer they make them, the less accidents they have, and the less money they have to pay.

Q. In this country, would you recommend the licensing of factories? A. I have not given that thought. One ideal of the Museum of Safety would be that a plant could submit its system of protection, of safeguards, to an institution like the Museum of Safety, and get a certificate of safety, so to speak, from the Museum. That would be a guarantee that its plant was made safe, and to a certain extent, could be submitted in evidence in case a damage suit was brought.

Q. Why would that not also apply to the submission of plans to a responsible department, and have them approve the safety appliances? A. Oh, it would; the same thing.

Q. The same principle would apply to that? A. Yes.

Q. Isn't it a fact, also, before the costly machinery is installed, safeguards can be provided with very little cost, whereas later on, the entire plant may have to be reconstructed? A. Oh, yes, it is more advisable to do what is being done now — having safety engineers and safety committees. As a result of a suggestion, the Rochester Railway and Light Company installed a safety committee whose business it is to make that plant safe. They have nothing else to do except to make the plant safe in every feature. The Museum is standing behind the safety committee and gives them all the hints, suggestions and advice which they want.

Q. Of course, the ordinary small manufacturer could not go to that extreme? A. No, sir; but he could either go to the Museum or get a written report illustrated with photographs of every kind of device to be used in factories. The Museum could be brought to his factory.

Q. Do you think the safety of the appliances, and interior construction of the factory ought to be approved in some way or form before the factory is permitted to be opened and operated? A. It would be very much better for everybody if that was done; yes. That checks the evil at their source, if they start right.

Miss DREIER: You spoke of the trades being organized in Germany for the purpose of protecting——

The WITNESS: No; the Bureau of Experts, but the Berlin Museum of Safety consists of representatives from twenty-seven different trades.

Miss DREIER: Does that mean the employers, or the workers?

The WITNESS: It is about half of the workers and half of the employers. It is made up just that way.

Miss DREIER: I want to ask you about the cost of these hospitals; are the employees assessed for them?

The WITNESS: No; that is done entirely by the corporation.

Miss DREIER: Entirely?

The WITNESS: Yes.

Miss DREIER: No assessment at all?

The WITNESS: No.

Miss DREIER: Benefit funds of the employees?

The WITNESS: No. They simply have a man as manager. They want to give him the best and quickest treatment to be had.

Miss DREIER: I know of other places where the employees are assessed for benefits, so much a week.

The WITNESS: In some cases perhaps they are, through mutual benefits or societies — one of the results of giving them the privileges of hospital treatment.

Miss DREIER: That is what I wanted to find out, whether they have a mutual benefit society for the workmen which they have to pay into.

The WITNESS: I do not think they do there. I do not think there is anything of that kind. The corporation does the whole thing.

The CHAIRMAN: Do you happen to know about the consumption of liquor by American laborers — how does it compare with the consumption of liquor by the European laborer?

The WITNESS: I cannot tell you. I have not got to that yet. I happened to be in Germany last summer, and I took up the German end first, because I know there is a strong feeling there that excess of alcoholism is responsible for a large number of accidents, so they are putting it on the absolute economic ground, without appeal to sentimentality — just as a point in the prevention of accidents.

The CHAIRMAN: It means the fading away of the German beer, does not it?

The WITNESS: To that extent, it does.

The CHAIRMAN: You have not studied the question in this country at all?

The WITNESS: No, to no great extent. Just as soon as I get ready for that part, by simply writing to Washington, some of the Departments will give me the statistics. I tackled it from the German end, because I know how successful they are in cutting down their accidents.

Senator HAMILTON: They have a mutual system of insurance in Germany — you spoke of a raise in the rates?

The WITNESS: For instance, the German wood workers are associated in four different trade associations. They have a trade association with headquarters at Munich. The Secretary of the Trade Association knows all their accidents and their causes which have happened in the last twenty-five years in that industry. That enables him to make up the premium, so to speak, or your assessment for the following year, so you know what you will have to pay in January or in June, and you know exactly, definitely. Then the Trade Association takes care of all your accidents; but if they find that you are careless in not making your factory as safe as possible, they have the right by law to increase your premium up to fifty per cent. Of course, they give you notice, but before that comes you will make your plant safe.

Senator HAMILTON: This association is a sort of mutual insurance scheme?

The WITNESS: To that extent; but it has the sanction of law. Every employer must, by law, fall automatically into his trade association. If you open an electric plant in Germany to-day within three days you have to report to the Police Department that you have opened it.

The CHAIRMAN: It is compulsory?

The WITNESS: Yes.

Senator HAMILTON: But it must be a mutual proposition in order to divide the loss between the different concerns?

The WITNESS: The minute you open your factory, you notify your trade association of your pay roll and number of men, and on that basis your premium is calculated.

Miss DREIER: Does not the government have anything to do with that?

The WITNESS: No; the government simply says the employer must bear the entire cost of compensation. Of course, the govern-

ment has a supervision over the accident rules and regulations which each trade association puts out.

CHARLES KIRCHOFF, called as a witness, and duly sworn, testified as follows:

Examination by Mr. SHIENTAG:

Q. You are Director of the Institute of Mining Engineers?
A. President.

Q. How long have you been such president? A. For a year.

Q. Will you tell the Commission what the Institute of Mining Engineers is, and what it does? A. The American Institute of Mining Engineers is a technical association of mining engineers and metallurgists, who deal exclusively with technical subjects for the promotion of the industries of mining and metallurgy.

Q. In your capacity as president of that institute, you have considered the subject of accident prevention in the industries? A. No, not so much in that capacity as I have been connected with the American Museum for a number of years, and having given attention particularly for many years to accident prevention in iron and steel plants. I was for thirty years the editor of the Iron Age, and traveled abroad and in this country, and that incidentally was one of the subjects which I gave much attention.

Q. The Commission would be very glad to have your views on the subject of accident prevention in those industries that you are familiar with. A. I think the Commission ought to clearly understand, to begin with, that a very heavy percentage of the accidents which happen are the inherent risks of that industry; a very heavy percentage of our accidents in industrial pursuits cannot be very well avoided; that all efforts you make for their prevention bring you finally to a certain percentage of accidents for which there is no help.

Q. What is that percentage? A. That varies. In certain industries it has been as high as thirty per cent, where no preventable causes could be traced.

Q. What industries are they? A. There was the iron and steel industry; accident statistics in Europe.

Q. How many years ago? A. It is within the last twenty years.

Q. Well, that percentage has been materially reduced, has it not, and is being reduced? A. It is being reduced recently, yes. Then, of course, there are the preventable accidents, and among those are the ones that are due, first of all, to the negligence of the employer, which is, that he has not provided the necessary safeguards; that he has not given adequate instructions to the workmen, either himself or through his representatives in the way of engineers and foremen. Then, of course, a pretty heavy percentage of accidents is due to negligence and recklessness on the part of workmen themselves, and among those, the very worst of those which are due to recklessness involving not only the careless persons himself, but also his fellow workmen. And I will say that it is important to consider that in this respect we are at a disadvantage in America as compared with Germany, where the men are accustomed to military discipline, and to obey orders, while unfortunately, the great mass of our American workers do not as implicitly obey orders as they do in Germany and in France.

Q. Would you favor the establishment of a Museum of Safety as a part of the State Labor Department? A. Yes, sir; I would.

Q. Do you think it advisable for the Commissioner of Labor or the Labor Department to issue bulletins and descriptive pamphlets from time to time showing the safety devices and how they can be operated, and the comparative cost of these devices, calling the attention of the employer and employee to the dangers in the particular industry? A. Yes; if they will do that in co-operation with the men who are engaged in the industry.

Q. Well, how do you find that that co-operation best and most readily secured? A. I think the co-operation is available to their managers now, because at least in the one industry with which I am familiar, the employers themselves have gone very much further in that direction than any labor bureau has yet hoped to do.

The CHAIRMAN: In other words, they have found it profitable to improve their own plants?

The WITNESS: Yes.

The CHAIRMAN: Without any compulsion by law?

The WITNESS: In the Iron and Steel industries to-day, there is no large plant which has not in the last few years been brought up to a state of efficiency in this country fully equal to any in Germany after twenty-five years of work. That is a thing that I think ought to be thoroughly understood, for the credit of that industry. Nearly every one of them has employed engineers whose sole business it is to study safety appliances, and to watch that these safety appliances are kept in condition. It is a question more of eternal vigilance than it is of once making the start, and then letting it go.

The CHAIRMAN: You say that is so in Germany?

The WITNESS: No; that is here now in the United States. That takes the place in this country of the inspectors abroad who are employed by an association.

By Mr. SHIENTAG:

Q. Only a very large corporation can do it on that scale, I suppose? A. On that scale.

Q. What measures would you recommend in the case of the small manufacturers? A. The small manufacturers, we find now, are confronted with a large rent, and I have noticed, in visiting a number of works that they are adapting the improvements which they see to their own convenience.

Q. Are you familiar with the system of factory inspection in European countries, Doctor? A. Yes.

Q. Would you recommend the registration of factories and manufacturing establishments in this country? A. I could not say. You have got to take into account that in the iron and steel industry, the men employed are not feeding the machines;

the supplying of the work is done by automatic machinery which needs really only tenders, people who watch that the operation goes on. It is all done on such a scale that the machine is not supplied by the man with his hands; it is all automatic, so that outside of common labor that is used in the iron and steel business, the great mass of the workmen have short spells of activity and long spells of practical idleness, in which their work is confined to watching the operation, seeing that nothing goes wrong. There is no continuous eight or ten hours work in which every employee is occupied in repeating the same manipulation. That does not exist.

Q. You think then that education and eternal vigilance are the two things that tend more than anything else to prevent accidents?

A. Yes; and discipline.

Mr. SHIENTAG: Anything further?

Miss DREIER: Has the length of the working day anything to do with the number of accidents?

The WITNESS: No, I think, a good many of them — first of all, as I say, the day is not very long in the iron and steel industry, ten hours, and a very large part of it is really taken in observation.

By Miss DREIER:

Q. But if it is nine and ten hours in New York State —

A. Of course.

Q. And we have the records of Pennsylvania in the Iron and Steel industry where they work twelve hours a day. A. That is probably on shifts, and it is on common labor.

Q. Only? A. Yes.

Q. How large a percentage of the work is done by common labor? A. A large per cent, so far as the number of men is concerned, but comparatively a small percentage so far as the amount of wages and the amount of work done is concerned.

By the CHAIRMAN:

Q. We have some evidence here that most of the accidents occurred either at the time the men were quitting, either just before lunch hour or quitting time in the evening. A. Yes, I think that that is probably true, in those occupations in which the constant repetition of minute operations exists, but that does not exist in the iron and steel industry.

By Miss DREIER:

Q. What does the common laborer in the iron and steel industry do? A. Push cars and mostly do a lot of operations of that kind, tipping and loading cars, loading and unloading raw materials, etc. The great mass of the materials are handled by cranes.

Q. Is it not true that standing around and waiting for something to do is as fatiguing as doing it almost? A. That depends on the personality.

By the CHAIRMAN:

Q. Not usually? A. No.

Q. With men that do that class of work? A. No. It is not the case that they are not doing anything. They are watching. It is their business to see the operation goes on continuously. They have a very important interest in seeing it done, because any trouble means a great deal of hard work to put things in shape again.

By Miss DREIER:

Q. For instance, I mean the effect of intense concentration. A. Yes.

Q. I have seen a man watch a cage which went down to the mines. If he makes one second's mistake the men are very likely to have some accident, and he has to watch them for ten hours a day. Now, that is not hard work? A. No.

Q. One way? A. No.

Q. But that is a very hard kind of work in another way? A. Well, if he should make mistakes there are supposed to be auto-

matic appliances to prevent accidents. At a mine of that kind, probably you would see that if they called your attention to it. If he did make a mistake that would not endanger the lives of men.

By the CHAIRMAN:

Q. Why are you opposed to registration of factories? A. I am not opposed to it.

Q. You have not thought about it? A. Haven't thought about it.

Q. Haven't thought of the question of licensing? A. No, sir.

Q. Don't care to tell us your opinion? A. No, sir.

Q. Not without due deliberation? A. No, sir.

By Mr. SHIENTAG:

Q. The Commission would be very glad to have you give your opinion on this subject, if you would.

The CHAIRMAN: We would like you to consider it.

The WITNESS: Thank you. I will be very glad to do so.

ALFRED D. F. HAMLIN, called and sworn.

Examination by Mr. SHIENTAG:

Q. Professor Hamlin, you are connected with Columbia University? A. Yes, sir.

Q. In what capacity, Professor? A. I am the directing head of the School of Architecture of Columbia University.

Q. And for how long have you occupied that position, Professor? A. Since 1903.

Q. You are familiar with the present fire-escape facilities in the manufacturing buildings in New York City? A. Simply in a general way.

Q. Will you tell the Commission how, in your opinion, the present fire-escape facilities in factories and manufacturing establishments can be improved? A. I am a strong believer in the device of fire walls, continuous fire walls.

Q. Will you explain to the Commission what that is? A. That is a wall extending from the basement to the roof, dividing the manufacturing building in two, but there may be more, if it is a large building dividing it into two or more sections.

This wall is fireproof and is perforated at each floor with doors, one or more doors leading from one section to the other. These doorways should be closed by fireproof doors. Each division into which the factory building is divided by this fire wall should be provided with its own continuous stairs from the street level to the top floor. In that way, in case of a fire in either division, in one of the divisions, the occupants on each floor simply have to pass through the door into the other space division, through the emergency door where they simply have to walk from there to the street.

Q. In what type of building would you recommend the installation of fire walls? A. I think they should be installed in buildings which we call the loft type, which are occupied for manufacturing.

Q. That is in buildings over six or seven stories in height? A. Yes, sir.

Q. Would that be irrespective of the width of the building? A. In the case of a long and narrow building, the walls should be a broad wall, divided into two sections, the object being that in every loft building used for manufacturing purposes there should be one-half of the building absolutely safe from fire at all times in case of breaking out of fire in any other portion.

Q. How thick a wall is that? A. The thickness of wall would depend upon the method of construction. If it was a wall supported on steel beams at each floor, it would not need to be more than eight inches thick, but if it were a structural wall carrying its own weight, the thickness would have to depend upon the

height of the wall according to the laws of the city. That would make a massive wall in the lower part of the building.

Q. What would happen if you had a fire on both sides, where would you go then? A. Each side can go down its own stairs. Of course, that is a very unusual contingency. There are cases, of course, where a fire-escape is wrapped in flames, but that is not a reason for dispensing with fire-escapes in buildings which have no other means of escape.

Q. That would involve a radical change in the interior of a great many existing buildings, would it not? A. It might and it might not. In some cases there would be a very slight change that would result, but in other buildings radical changes would result, if that were introduced in existing buildings.

Q. How would you introduce it in existing buildings? A. I think it could be introduced into existing buildings under the decision of a competent Commission to decide each case upon its merits.

Q. You don't think that it is possible to lay down any definite standard for existing buildings? A. No, not any definite standard, because existing buildings will differ so widely. An existing loft building that has been made out of an old dwelling house that was fifteen feet wide on the floor, and four stories high, will differ from the loft building ten stories high with four thousand feet on each floor.

Q. But you think that wherever that is possible or practicable, the fire wall is one of the surest methods of escape in case of fire? A. I think the fire wall is the most practical means of securing a means of escape to save life in loft buildings, especially the larger types of loft buildings, because in case of fire, all anyone on either side of the wall has to do, is to leave the side where the fire is, pass through the emergency door on his own floor right on to the opposite side, and then he can leave the building by the stairs with ample time to escape.

Q. Take a type of loft building 25 by about 80 feet, ten stories in height, can you tell the Commission what would be the cost, approximately, to install fire walls? A. No, I could not, and no answer would be available for all buildings of that sort. The construction of the building, the foundations, the number of

the existing apparatus, if any, in the building, the condition of the stairs in the building, all those would affect the cost.

Q. The cost would be considerable, undoubtedly? A. It would be considerable. In other words, it would be impossible, in my judgment, to secure the kind of safety device to which every operator in a loft building is entitled, without the expenditure of money.

By the CHAIRMAN:

Q. Are they anywhere in use now, that you know of? A. I don't know at present of any particular instances I could point to. There are various cases; for instance, there are houses that have been thrown into one, where you have identically that condition, the fire wall from the top to bottom. You have a stair on each side of that fire wall.

Q. In your opinion would it cost more to install the fire walls that you speak of than to equip the building with a sufficient number of stairways and adequate outside fire-escape facilities, so that they could be used, taking an ordinary building? A. That would require very careful figuring to determine what the relative cost would be, but I think the relative safety would be very much greater in the case of the fire walls.

By Miss DREIER:

Q. What do you think of fire staircases in preference to a wall, is that anywhere near adequate, I mean a fire tower? A. Yes, the smoke-proof stair?

Q. Yes. A. The difficulty with the smoke-proof stair is that you have only a small landing space on each story and you will be subject to the condition of the occupancy of each floor, that is the occupants congesting upon the one stairway and meeting the stream that is coming down from the upper floors.

Q. The fire tower would not really be adequate? A. It might be adequate in nine cases and fail on the tenth. That is, you might have terrible congestions on these stairs, which are oftentimes more fatal than anything else. I think that question of people congesting upon stairways in these high loft buildings is

exceedingly important. If I remember right, at the time of the burning of that Collingwood school building in Ohio, about five years ago, when I think 140 children, more or less, lost their lives, very few of them were burned to death, the majority of them were either suffocated or crushed because of congestion upon the stairs. Where you have a fire in the lower floor of a building, where the stairway supplies the entire building, and where the entire building is menaced, should a fire start in one of the lower floors, the smoke would go through the building and panic would ensue inevitably. Where they only have, as a means of exit the smoke tower, they can only filter through as fast as the descending currents of occupants pass out of the building.

Q. That applies to the smoke tower? A. That applies to the smoke tower and the fire-escapes also, and that applies to any stairway on which the landing space is congested.

Q. What is your estimate as to the value of the outside fire-escape as a means of escape in case of fire? A. It is a mitigation of the danger, but I don't think it is adequate, particularly as the majority of fire-escapes are constructed now.

Q. Of course, a fire wall itself is of no value unless you have supplemental and proper staircases and these should be enclosed in fireproof walls, should they not? A. No, not necessarily, because you have the entire landing. The side to which the occupants escape from the burning side is not the side of the building that is on fire.

By Mr. SHIENTAG:

Q. Now, in existing buildings, Professor, would you recommend the removal of wooden stairways that wind down elevator shafts? A. I certainly should consider that wooden staircases should be removed in any case.

Q. In existing buildings? A. In existing buildings.

Q. Irrespective of the cost involved? A. I think wooden stairways in a loft building are a crime.

Q. How about the so-called fireproof stairway, enclosed in a fireproof wall? A. Incombustible?

Q. Yes. A. There are fireproof stairs and fireproof stairs. There are fireproof stairs that are built entirely of wrought iron

and which are exposed to danger of becoming very heated in case of fire. If you have a fire under the stairs, your stairs are not of very much use in any case and I think the stairs themselves should not furnish food for the flames.

Q. Are stairs winding down elevator shafts dangerous in themselves? A. I don't know as I could express an expert opinion on that, except every wooden elevator shaft is subject to the flames. The flames originate from the lower part of the building, and in that case it can't be confined to the elevator itself. If the elevator is enclosed entirely in a fire-proof wall and is enclosed by fire-proof doors, wire wick doors, it is possible that a staircase winding around the elevator shaft may not become itself a source of danger, but it certainly is not a desirable place for a staircase.

Q. But would you recommend the removal of such existing staircases winding around elevator shafts? A. I think it would be too drastic a requirement in the present condition of the existing buildings.

Examination by Miss DREIER:

Q. Would it be necessary if you had a fire wall? A. Provided there were a staircase on either side. The staircase I think should be fireproof.

Q. Anyway, they should be fireproof? A. Suppose a small fire originates on a lower floor under a wooden staircase. That fire may be put out in three minutes. It may meanwhile have destroyed the stability of that wooden staircase. The smoke may have penetrated to the top floors. Your operators run out of the different floors and run to the stairs and they all come down to the lower staircase that is burnt out. Therefore I think a wooden staircase is a crime for two reasons; that in the first place it furnishes a food for flames and carries them through the other portions of the building, and in the second place it may be destroyed by a very small fire, that does not endanger life in any other way, and therefore when a panic causes the people to crowd down the stairs a terrible calamity will result in their finding the stairs burnt out or chopped out, as is often done in order to stop the fire.

By Mr. SHIENTAG:

Q. Now, in the case of buildings to be constructed in the future, what method would you recommend to secure proper and adequate fire-escapes? A. It seems to me that on each floor the area of undivided space should be limited, that is, that it should not be possible to build a loft building with an absolutely unlimited open space unseparated from other spaces by fire walls. I am not prepared to say that space should be a certain amount. That is a subject for study.

It seems to me in the next place every loft building should be required to have a continuous fire wall, constructed as I have indicated, and a staircase to correspond.

Miss DREIER: May I ask a question? Would you consider it better if these staircases were on either side of the wall, or would it be better to have them on the opposite side of the building?

The WITNESS: I do not think that is a very material point. Of course the only possible awkwardness from their being against the partition wall might be that when the doors were opened to permit of the exit of the occupants, a certain amount of smoke might pour out and fill the stairs, whereas if they were on the farther wall the smoke would not so rapidly reach the stairs. That is the only inconvenience that I can think of and if a great economy were effected by building the stairs on either side of the division wall, I do not see any serious objection to it.

It seems to me also that the very important point is the limitation of the number of operators in proportion not merely to the exits and the staircases in conjunction with the building, but also in proportion to the unencumbered floor space of each manufacturing room. To allow the same number of operators to occupy ten thousand square feet, for instance, of loft space irrespective of the fact that in one case you have many narrow tables with little hand-sewing machines, and in the other case you have eight thousand feet of that space occupied by machinery, it seems to me, is entirely absurd. I do not think that there is any regulation at present to limit the population of loft space in proportion to the unencumbered floor space.

By Mr. SHIENTAG:

Q. Well, do you think it feasible to lay down a definite standard on that subject? A. I believe it is feasible to lay down a definite standard, but I think it will require very careful study and taking into account of a great variety of factories, and the character of the manufacturing process, for instance, whether one machine is tended by two persons, or one persons tends ten machines. That makes a difference in the conditions. Some manufacturing operations are attended by a very considerable fire risk and others very little, and I think that the factors to be taken into account are so numerous that it would require very prolonged study to specify the occupancy, but at the same time it does seem to me that if it is brought down to the basis of so many square feet of unencumbered floor space, that comes close to making a uniform condition for all the different industries, because that means that there must be that amount of space which can be occupied on the floor by the operators, and also a minimum of space in excess of the various exits.

Q. Well, why could not that be accomplished by providing a certain minimum of clear passageway or aisles leading to the exits? A. That is absolutely essential; I think that is necessarily a part of the regulation that ought to be introduced.

Q. But is it necessary to go to the other extreme according to the amount of unencumbered space? A. Yes, because there is a large part of the space occupied by the operators themselves between the machines, if the machines are crowded too closely together reducing the amount of floor space, even though you have an ample aisle running the whole length of the room, your operators have to work their way out between those machines to those aisles into those exit passageways, and unless there is some limitation as to the total square feet there will always be a tendency to crowd between the aisles, to crowd the machines up and crowd the operators between the machines, and then you have the possibility of panic and of accident.

Q. That can be remedied by the proper spacing of machinery, can it not, Professor? A. Yes, that can be remedied, but it seems to me that the simplest way of formulating that is to put it on the basis of unoccupied space.

Q. It might be a hardship on the people in some particular industries where a great many machines are required? A. Well, they would certainly have a minimum of floor space, but that is what it amounts to; that is what it comes to.

Q. Would you recommend, Professor, that the number of people employed in buildings should be less in proportion to the height of the establishment or as you go up a building? A. I have not yet formulated any idea on that subject and I would prefer not to answer that question. I am not prepared to say whether with proper construction, and with proper reform in the construction and planning, and restriction of operatives per square foot of unencumbered floor space, any further restrictions as to the number of stories would be necessary.

Q. I am not referring to restrictions of manufacturing altogether in the upper stories of a loft building. A. No.

Q. I want simply to ask whether in your opinion there ought to be fewer employees permitted in the upper stories of a loft building? A. It seems to me the number of employees permitted on floors depends upon the adequacy of the provision for exits, and the protection of buildings against the danger of fire, and I do not at the present see why the restrictions should follow with the number of stories unless it be proved that the safety of the operatives is diminished. Now, if reformed methods of planning and construction are carried out, including one provision that I have inserted in that memorandum there—I would like to speak about it just a moment—it seems to me that it would remove the necessity of any restriction of the population of stories, with reference to the number of stories. Now, that provision is simply this, that the greater the number of stories, the greater should be the number and area of the stairways in the lower stories. And that is substantially the principle that is recognized, so far as I know in only one class of buildings in the cities to-day, and that is theatres. The greater the number of galleries that have to be served, and the greater the number of people in the building, the greater is the number and the area of the stairways in any theatre or place of public entertainment. And that is definitely prescribed by law. It seems to me the same principle should obtain in factory buildings for this reason,

that even with the division by fire walls, there is possibility, as has been suggested, of a panic, or fire on both sides of the division—that is to say, the necessity of emptying the entire building in a short space of time, and in order to do that, since each lower stairway has got to receive the whole population of the stairways above, the greater the number of the stories above, the greater should be the area of the stairs. But as the reform will necessitate legislation, that will of course have to be very carefully studied, whether the increase should be in so many feet of width and so many staircases every six stories for every six stories added or whether it should be a sliding scale for the first six, the next four and the next two of successive stories, all those details would have to be carefully studied by experts.

Q. Do you find the tendency, Professor, to be to place less reliance on the outside fire-escape? A. Yes, I think so.

Miss DREIER: It has been suggested here, I think, that we prohibit manufacturing being carried on in these loft buildings above a certain story.

The WITNESS: Yes.

Miss DREIER: What do you think of that?

The WITNESS: I think under the present conditions that is desirable and in some cases essential, but I was speaking in connection with the question of the number of employees or of occupants of the upper stories, that if all these other safeguards were adopted, it would make comparatively little difference in which story a manufacturing industry was carried on.

Miss DREIER: It would take an awful lot of space, wouldn't it, to have the floor, I mean the staircase——

The WITNESS: Ah, there, I think you have the element which my suggestion would bring in. It would gradually result automatically in curtailing and finally in terminating the carrying on of crowded manufacturing industries in very high stories, or in a building of excessively high lofts, so that then tall buildings would only be mostly office buildings and not miscellaneous loft buildings. And perhaps I might say that was a sort of trump

card up the sleeve of that proposition. It seems to me that if these provisions were deemed to be necessary for the safeguarding of human life and provisions of that sort were adopted and carried out, that the result would be, from purely economic considerations, that the crowding of large numbers of operators with machinery would cease in the upper floors of loft buildings, and they would have to be given up to such occupations as studios and offices and engraving concerns and artist work, and things of that sort, and not to machinery or to what we call ordinarily manufacturing.

Q. If you put a fire wall with the smoke-proof tower on either side of the building you would not care very much if the capacity of that smoke-proof tower were made — A. I think that would be of course a great improvement over the simple existence of a single smoke-proof tower in a building, because that condition that obtains which I spoke of, the congestion of landings and staircases. Now, a smoke-proof exit or landing is very limited in area, and safety is not reached until you have got within the smoke-proof tower, and I do not think, myself, that the smoke-proof door would become a necessity with the fire wall, and that just an ordinary open staircase, fireproof as some of them would be, would be a great deal more safe than a smoke-proof tower.

Mr. SHIENTAG: Any further questions?

The CHAIRMAN: No. Thank you very much. The Commission will adjourn now or take recess to meet at 2:30 in the room now used by the Board of Estimate and Apportionment.

Adjourned to 2:30 P. M.

The CHAIRMAN: The Commission will come to order.

Mr. SHIENTAG: Mr. Conkling, will you take the stand?

ALFRED R. CONKLING, called and sworn, testified as follows:

Examination by Mr. SHIENTAG:

Q. Mr. Conkling, in what capacity do you appear before the Commission this afternoon? A. As the owner of factories, at

least garment workers, in regard to smoking and to fire drills in factories.

Q. The Commission will be very glad to hear your views on those two matters; first, with reference to smoking, do you think that smoking should be made a crime? A. Smoking in factories and manufacturing establishments?

Q. Yes, smoking in factories and manufacturing establishments. A. I do; I think the smoker should be the guilty man, and not the owner or employer.

Q. Not under any circumstances, Mr. Conkling? Suppose the owner or employer sees the smoking and takes no steps to prevent it? A. I will tell you my own experience.

Q. We would be very glad to hear that from you, Mr. Conkling. A. I have a factory about half a mile south of that ill-fated Washington place building. After the fire I went to my building and had the words "No Smoking" in large letters on the wall of the lower hall and again on the floors, written in black letters on white ground. I asked the tenants to put up the sign "No Smoking" on all floors, which they did. I talked with the tenants about it, speaking about some cigars there, and in spite of that there was a fire there about July 5th, at five minutes past six. The damage was small and no one was injured.

I then went up to the fourth floor, the guilty tenant, and scolded him for smoking. He says, "The boys will smoke." Burnt cigarettes on the floor, empty boxes of cigarettes and burnt matches. Now, you ask if I would make the misdemeanor apply to the employer who lets the operatives smoke in his presence. I must take time on that. I cannot decide that with such short notice.

Q. But you do believe in making smoking in a factory or manufacturing establishment a misdemeanor? A. Absolutely.

By the CHAIRMAN:

Q. Suppose the statute read, if an owner permitted smoking to go on. That means that he had knowledge of the smoking and that would be a misdemeanor. A. Yes, sir; but that is—imagine a factory of five hundred employees on two floors; one lessee, one employer, John Smith & Company. The man is out part of the

day; he may be sick or be out of town; may be in his office writing. He cannot watch more than perhaps thirty or forty employees.

Q. You could not convict him, then? A. No, sir.

Q. You could not convict him if the statute read that if he permitted smoking to go on. You would certainly have to prove then that he had knowledge of the smoking; the same as they do now in — A. Let me go back to my own factory. The same man said to me the other day, "They must smoke." It has a solacing or soothing effect.

Q. The same as cocaine? A. Yes, sir. They must smoke it. The floors are full of linen, muslin and other scraps. But suppose I had a piano factory and there were perhaps two inches of shavings on the floor. I think I would make it a felony, rather than a misdemeanor, to smoke in that factory.

Q. Why shouldn't the employer be held for actions of his employees, if he has knowledge of those actions and acts? A. At common law, yes.

Q. No, as a practical matter. We want to look at it practically. A. I am afraid we could not pass a law of that kind.

By Miss DREIER:

Q. What would you do with the employer who smoked in spite of the fact that he had a sign out, "No Smoking"? A. I have seen them do so. Such a person I would blackguard and abuse.

By Mr. SHIENTAG:

Q. You would punish him? A. I say the guilty man should be punished, exactly, even if he is the lessee, if he smokes; why certainly. I meant the person guilty of smoking, whether employee, operative, elevator man or cleaner or lessee or what not, or the bookkeeper or anybody in the factory.

Q. You would recommend that anybody who smoked in a factory be punished, but you would not go so far as to say that anybody who knowingly permitted smoking to be carried on in a factory should be punished? A. I can't convince myself at this moment that that would be a fair law.

By the CHAIRMAN:

Q. They have it now in the excise law. A liquor dealer who knowingly permits gambling to go on on his premises forfeits his certificate and can't do business for one year. A. I think the cases are not parallel.

By Mr. SHIENTAG:

Q. What is the difference? A. Because smoking is an act of a minute. Gambling may be an hour or all night. There are the table and the cards.

Q. But you would have to show under the statute, which Senator Wagner suggested, that the employer had knowledge of that smoking?

The CHAIRMAN: Yes, in spite of that knowledge, permitted them to go on?

The WITNESS: This is the first time that has been called to my attention. I am a lawyer. I have been in the Legislature. I would be glad to answer that question after reflection. I will submit a brief to you, if that is satisfactory to you.

The CHAIRMAN: Thank you very much.

The WITNESS: If you will allow me to do that, I will do so.

By Mr. SHIENTAG:

Q. We would like to hear your views on the subject of fire drills in manufacturing establishments. A. I got interested in that subject after the Washington Place fire last March. I went through the factories which I owned and put in fire axes on every floor and one of them that I owned, the next building, about thirty feet away, I put in ropes like in the hotels, from the windows. I tried to get a fire drill. I got the names of several principals of the public schools and offered to pay them, with the price of cab, on Saturday, to meet the employees of the buildings which I owned. I could not do it. They were too busy. I got

the names of four or five principals and it was the old story, they were too busy.

I then thought about employing exempt firemen to teach the fire drill, and I think that is practicable, to have a sort of auxiliary force or rather a bureau of fire prevention in the Fire Department, to put on the exempt firemen, experienced men.

The CHAIRMAN: Retired firemen?

The WITNESS: I think that is the title, "Exempt Firemen's Association." I have — that is the title, by Harry Howard. Of course, he is dead now. I thought it would be wise to have exempt firemen, even old volunteer firemen, to teach the fire drill. They are men of years, they are patient, unlike young men and young women, and I think it would be wise to have them teach the employees at the factories.

But I want to emphasize the fact that all fire drills and fire prevention laws in the world would be of no use if the working men and working women will lose their heads.

I come back and will start with the Washington Street place. Yesterday I talked with a friend of mine who saw the fire. He lives around the corner. He told me that before the smoke came out of the windows about sixty women jumped from the upper floors, the eighth and ninth floors; some before the Fire Department came and some afterwards, when it was not necessary. Now there was no fire-escape there on the front of the building. The firemen came with their nets. They jumped six at a time into the net and the firemen fell forward, and they were killed.

Now, we must begin with the habits of the working man, the working people in this city, especially the working girls, and the fire drill will be of no use, if they lose their heads.

On information and belief I read that in two minutes you can empty a school of two thousand children, by the fire drill. To this end, I have got a copy of an ordinance here, for weekly fire drills, etc. It was handed by a representative of the New York Federation of Women's Clubs to Alderman Dowling, leader of the Board of Aldermen a year ago last May. It never passed. I think it was not even introduced, and I hand that to the counsel as an exhibit.

By Mr. SHIENTAG:

Q. Let me ask you, do you think it practicable to have a so-called co-operative fire drill for different and independent establishments in one loft building? A. (No response.)

Q. Take the ordinary modern loft building where you have perhaps ten or fifteen manufacturing establishments, owned by different proprietors. What sort of fire drill would you compel in an establishment of that kind? A. The school fire drill.

Q. Well, the school fire drill relates to one organization. Here you have ten or fifteen different organizations. A. And in different kinds of business.

Q. Pardon me, different kinds of business; different kinds of employees; different nationalities and of different habits. A. And some cannot speak English.

Q. What would be your suggestion as to a practical fire drill in a building of that kind; have you given the matter any thought? A. Well, my idea was to have a fire drill on every loft once a month.

Q. Separately or part of one complete uniform fire drill for the whole building? A. On every floor.

Q. Separate? A. Yes, sir. For instance, on fifteen floors, that would, of course, take say half an hour for a drill. That would be fifteen times half an hour, and you would have to have it in the lunch hour, because the tenant or proprietor would object very much, in my opinion, to stopping work, stopping the machinery, stopping the whole thing for the fire drill during business hours. So the lunch hour would be the time, between twelve and one.

Q. And you think it would be practicable to have a separate, independent fire drill for different establishments in one loft. Do you think that would accomplish its purpose, which is emptying the building in the shortest possible time? A. Well, I have not gotten to the point of having all the details of the building, but something like a fire drill at sea, where they sound the alarm with a bell, and then they line up in different groups, etc., and they start the hose and play the water on the sea. They don't want the boat filled with passengers. I would go through most of the fire drill. I would not empty them once a month, but I

would have them march to the front or rear staircase and to the elevator. Of course, that is a matter of detail which could be very easily carried out in practice.

I want to say now, come back to my own factory. I went there and spoke about a fire drill. They said yes, they would allow it in the lunch hour. Then I wanted to have a friend go with me and a fireman and I kept putting it off, and it occurred to me that with the young working girls that they might be huddled together and hurt themselves, in going down either the front staircase or the rear staircase or the fire-escape or the elevator, and that I might be blamed for such an accident, in case of the sudden cry of fire at midday there, which might disconcert them so as to turn out badly.

Q. You would not want to introduce a fire drill that way. You would want to teach them what to do first? A. I was trying to explain what time it would take to empty the building. I didn't mean a fire drill. But I meant to give the alarm of fire and see how long it would take to empty the building without a fire drill, which, I think, would be about one minute. Now, there is a fire engine house on the next block to me, and I think I could have it there in two minutes. It is a corner building. My idea was to experiment and give this Committee an idea of how long it would take to empty a building with perhaps fifteen to twenty-five women on a floor; which I think is about a minute and a half, by way of the front and rear staircases, the elevator and the fire-escape balcony, about twenty feet wide.

Q. You would make fire drills mandatory in all factories and manufacturing establishments? A. I am inclined to recommend that as a beginning. It will be a matter, of course, of a great deal of work to get a good factory law. It took twenty-five years to pass the pure food law in the federal government, and it will take a great many years to get the factory law which eventually this Commission would recommend. You can't get it in one year. You can't pass a drastic law this coming winter. You must pass the laws as they come.

Q. What sort of mandatory fire drill requirement would you recommend? A. Similar to an ordinance which I handed in. The bill prepared by Assemblyman Brooks, 319-1430, providing

for mandatory fire drills in all factories except those of one story, and employing more than fifty people. If counsel will write to Albany he will get a copy of the bill, Assemblyman Brooks, 319-1430, concerning fire drills, an amendment to the Labor Law. I submit that to the Committee without recommendation.

Q. Without recommendation? A. The bill speaks for itself.

Q. Do you recommend the bill? A. With some amendment.

Q. What amendment? Will you write to the Commission and let us know? A. I will communicate with the Commission.

Q. Is there anything further you care to tell the Commission?

A. Only smoking in factories and fire drills.

Q. You think those are two matters of prime importance to call to the Committee's attention? A. Yes, I have studied those things carefully, but am not prepared to make suggestions on other matters before the Commission.

(Witness excused.)

W. GILMAN THOMPSON, was called as a witness and being duly sworn, testified as follows:

Examination by Mr. SHIENTAG:

Q. Doctor, with what university are you connected? A. Professor of Medicine in Cornell University Medical College.

Q. Are you connected with Bellevue Hospital? A. Yes.

Q. In what capacity? A. I have been visiting physician there for a number of years.

Q. How long have you occupied the chair, Professor, of Medicine of Cornell Medical College? A. Since the school was founded, about twelve years.

Q. How long have you been a practicing physician in this city, Doctor? A. Since 1881.

Q. Have you given any special study to the subject of occupational diseases or poisoning? A. I have.

Q. Will you tell the Commission in a general way what that special study has been? A. It has consisted of the study of cases

which have come before me in the dispensaries and hospitals with which I am or have been connected, in reading and lecturing on the subject of hygiene.

Q. How many cases of industrial poisoning, or diseases, approximately, have come under your observation since you began the practice of medicine, in a general way? A. Several hundred. I can state specifically the number of cases we recently had, in my clinic, in Cornell and in Bellevue Hospital.

Q. We would be very glad to have that, Doctor. A. I brought the memorandum. During the last eight years there have been recorded in Bellevue Hospital among cases of acute lead poisoning 27, chronic lead poisoning 164; and in the Cornell Medicine College Dispensary three acute cases, forty-eight chronic cases of lead poisoning. Total 238 cases of lead poisoning in two institutions within a few years.

Q. That is just one form of occupational poisoning? A. Yes. There is a further memorandum of other metal poison cases, showing a very great preponderance of lead cases above the others. May I submit that to be put in the testimony?

(Paper received and marked in evidence as Exhibit No. 1 of November 16, 1911.)

Q. Bellevue Hospital has no special clinic for occupational diseases, has it? A. There is none in the city.

Q. Will you tell the Commission, Doctor, just what an occupational poison is; what an occupational disease is, and the distinction between the two, in a general way, and without being purely technical? A. Well, an occupational disease may arise from poisoning by some deleterious substance, or it may arise from undesirable surroundings and conditions of environment.

Q. What are some examples? A. Caission disease, for example, arises from environment, rather than from any deleterious substance. It arises from the modified conditions of air pressure under which the operator labors, whereas all occupational poisons are distinctly due to some form of deleterious substance. They are classified and subdivided. I would submit, if I may, in evidence such a classification.

MR. SHIENTAG: We will be very glad to have that.

(For this classification, see Appendix IX in Volume I of the Report.)

THE WITNESS: It is a working basis from the clinical standpoint of occupation diseases as they are commonly understood in medical practice.

Q. How many different kinds of occupational poisons are there? A. I can't answer that question unless you make it more specific. 150 occupations at least give rise to lead poisoning; 127 cases of arsenic poison; and there is quite a list of other deleterious substances that occasionally give instances of poisons, such as mercury.

Q. Will you tell the Commission some of the industries that are affected? A. There is a very long list.

Q. Just mention some of them, Doctor, that is of the City of New York. A. It is all set forth here very fully.

Q. Can you mention names of some common industries affected? A. Mercury, mercurial poisons; lead poisons the work is in the production of white lead, red lead, painters, plumbers, typesetters, a very long list. With arsenic, there are the workers in feathers, furs, dyestuffs, wall paper, poisoning occurs among them from a pigment containing arsenic.

There are, in addition, a very large number of occupation diseases, so-called, due to the inhalation of dust, such as occur among knife grinders, stone cutters and diamond cutters, users of emery; plaster.

Q. Leading to industrial diseases? A. Leading to a variety of diseases. There is also a list of those which I have submitted here, to save your time.

Q. Will you give the Commission a description of some typical case of occupational poison that has come under your observation recently? A. I saw a young boy a few days ago in my clinic who had a very marked case of lead poisoning, resulting in enlargement of heart and a serious disease of the blood vessels. He could not have acquired that at his age,—he was twenty-three, unless through some chronic poison.

On investigation I found that for three years he had been a painter's helper and had handled white lead. His health was absolutely gone. He was unable to work any longer and he could not live more than a year or two. Cases of that type in my experience are not uncommon.

I saw a case of lead poisoning the other week in my clinic; I see cases of varying degrees.

Q. Can you tell the Commission of any typical case of arsenic poisoning in the feather industry that has come under your observation; the feather industry is an industry in which a great many women are employed, isn't that true, Doctor? A. Yes. I can't definitely refer to such a case without looking at my memorandum.

Q. Will you describe to the Commission in a general way what arsenic poisoning is, and how it affects the sufferer. A. Arsenic poisoning affects the digestion, causing various forms of chronic intestinal disorder. It is very irritating to the lungs and it particularly acts upon the general nervous system, giving rise to what is medically known as arsenic neuritis, chronic inflammation of nerves, resulting in painful affections, and frequently paralysis. The symptoms are not unlike those of lead poisoning.

Q. Have any cases in which women were subject to these poisonings come under your observation, Doctor? A. I have not seen nearly as many women as men.

Q. But there are a great many women that suffer from these occupational poison diseases that you mention? A. A great many such cases are reported in the medical literature.

Q. In what industries are such cases common, other than the artificial feather industry? A. You mean as to arsenic poison or poisoning in general?

Q. In all the poisons that affect women. A. Women are less employed in the lead industries in this country than abroad, but women are much more susceptible to lead poison than men. They are more seriously affected by lead as a rule and are earlier affected than are men workers in the same industry.

Q. All these poisons, of course, materially shorten the lives of sufferers? A. They do, either directly or so injure their health as to make them very susceptible to serious diseases like tuberculosis or pneumonia.

Q. What is the extent of industrial consumption among factory employees, so far as you know, is it very widespread? A. I have not made a special investigation of that. I would rather not answer, because I cannot be very definite about it. My belief is it is very widespread.

Q. Can you tell the Commission what recommendations you would make to prevent and check occupational poisoning diseases?

A. The first thing is to agree upon the nomenclature classification, so that different investigators will gather statistics which can be compared with each other. For example, the United States Census in requiring reports of occupational diseases makes no mention of caisson disease that has recently become a disease according to the New York State law, which is reportable by physicians.

The first step, therefore, is to agree upon a classification and the general limitations of the subject. I should say the second step was to promote a wider interest and information among physicians who deal especially with occupational diseases in large dispensaries in large cities.

Q. How can that co-operation among physicians be thus brought about? A. We have only lately received a circular from the State Labor Commissioner requiring the report of a few occupational diseases.

Q. That is under a recent amendment to the Labor Law? A. Yes, within a few days. I would suggest that such a circular be supplemented by a more detailed report to physicians, giving information as to what the chief occupational diseases are, and the chief deleterious substances are, and their interest should be stimulated in that way.

In other words, I think voluntary reporting by a few men who know the subject, and who know how to deal with it, will result in obtaining much more valuable suggestions than a more widespread reporting which often leads to error. Patients often don't give their own occupation correctly. If a physician is not familiar with the deleterious substance that causes various poisons, the whole matter may be overlooked or wrongly classified.

Assuming, of course, that physicians do their full duty to their patients and to the State, you would recommend the compulsory reporting of all such industrial poisonous diseases, would you not,

Doctor? A. Yes. I think they ought to report to the State Board of Health rather than to the Bureau of Labor, for the reason that physicians are more in the habit of working with the Health Board, and co-operating with them. They are already obliged to do it in regard to contagious diseases, in regard to vital statistics of birth and deaths, and so on, and it would be a more natural means of securing co-operation.

Q. Have you prepared, Doctor, a uniform blank for reporting occupational poisoning diseases? A. I have for use in my personal practice, and I will present a copy here.

Q. Do you believe there should be a Bureau of Medical Inspection of the State Department of Labor? You know at present they have only one medical inspector for the entire State of New York, Dr. Rogers? A. I should like to see better data first collected before basing a definite opinion in that matter. The whole subject is comparatively new in this country, and I think the first thing to do is to gather statistical information before we multiply bureaus, and multiply legislation.

Q. How would you gather that statistical information, voluntarily from the efforts of a few interested, public-spirited physicians? A. I think so. Let me give you a concrete example. A member of our medical clinic staff has made the best report on caisson disease extant, covering 3,692 cases, which occurred among the 10,000 operators in the Pennsylvania tubes, to which he was the physician. Now, that report, made by a single expert in that disease, contains more information on which to base possible legislation in controlling the evils of that disease than a more general and widespread compulsory registration of such unusual cases as might be seen by other observers.

Q. Don't you think it would be advisable for the State Medical Bureau to make systematic investigations from time to time of the different industries, and of the dangers of those industries, and of the precautions that should be taken to avoid them? A. It is becoming a question of multiplying bureaus. We have a State Board of Health. To my mind, the logical place would be the State Board of Health.

Q. You think the medical inspection of factories should be turned over to the State Board of Health rather than the Depart-

ment of Labor? A. I think the acquiring of data should be turned over to the Board of Health on which to base legislation.

Q. What would you think of having an unpaid board of medical advisers interested, of public-spirited physicians, who would perhaps conduct the investigations, and advise the Commissioner of Labor concerning the formulation of rules and regulations?

A. If you can get anything good for nothing, it is a good plan.

Q. What do you think about it? A. I should think that was a good suggestion. I should certainly think some medical advice in issuing such circulars as the medical profession have recently received was desirable.

Q. What circulars do you refer to? A. I refer to circulars received from the Bureau of Labor requiring the report on four metal poisonings, one germ disease, and a caisson disease, to the Bureau of Labor, under a recent Act of this year.

Q. Were these reporting blanks adequate, in your opinion? Did they cover the subject? A. In my opinion they were so inadequate as to give practically no information, except what could be obtained from the city directory. There is no mention of the patient's age, of sex, or the duration of the period at which he has been employed in the particular occupation, and in many other respects there is a lack of suggestion and data that would be valuable.

Q. Well, Doctor, the Commission is very much interested in ascertaining the opinion of experts on the advisability of having such an unpaid board of medical advisers, to the Commissioner of Labor, or to the responsible authority? A. I should be thoroughly in favor of it.

Q. Do you believe, Doctor, there should be a physical examination of some kind of all persons engaged in dangerous occupations? A. I think that is exceedingly important, to stop the probability of it.

Q. Do you think that certain people are more susceptible to those poisonings than others? A. Of course, yes.

Q. Would you recommend the periodical physical examination? A. Certainly; that is the only way to obtain any results, I think.

Q. In what industries, particularly, would you recommend such compulsory physical examination? A. In all the larger lead

industries; in all the industries developing poisonous gases and fumes, and industries in which specially irritating dusts are evolved.

Q. Have you given any consideration, Doctor, to the employment of children? A. No; I have not.

Q. In manufacturing establishments? A. None whatever.

Q. Do you believe there ought to be a physical examination of children from time to time up to a certain age? A. I should include them certainly in the general medical examination.

Q. In all industries, I mean? A. Yes, sir.

Q. Are there any other suggestions or recommendations that you care to make to the Commission, including the prevention of these occupational poisoning diseases, and what can be done to check them? A. I think the ground has been fairly well covered by the questions you have asked.

By the CHAIRMAN:

Q. Doctor, your answers have been mainly on the question of collecting data, so as to get the experience, I suppose, in these different occupational diseases. I think the Commission would like, if you have given it any thought at all, to have you give us some practical way of preventing it in the factory by means of law; how can we improve the conditions in the factory so that the workman will not be subject to these diseases? Have you given that any thought? A. It is comprised, sir, in a part of of my answers, if I may put them together. My idea is that a periodical inspection of factories known to have certain hazardous trades, which we at present all know of, like match making, making white lead, etc., in such occupations there should be compulsory periodical inspection, which should include the examination of the operators, and a general report on their surroundings, and the conditions under which they work; if those surroundings and conditions require betterment, it can be done through legislation.

Q. Of course, that would require more than mere medical examination, would not it? For instance, it would require really an engineer to make suggestions as to improvements in the appliances, or the instruments with which they work? A. Certainly; but the way to get at it first is to determine the existence of the

evil, and the extent and character of it, then the means for correcting that is largely a question, as you say, of engineering, to my mind.

By Mr. SHIENTAG:

Q. Would you recommend, Doctor, that there be forced ventilation in all dust creating industries, so as to remove the dust at the point of origin? A. Forced ventilation is a very wide problem. If you leave out the word "forced," I should say yes. In many cases it is merely a question of opening windows, not having forced ventilation.

Q. As far as removing dust from the point of origin? A. Most certainly it ought to be removed. It can be done sometimes better by cleaning and wiping up than by ventilation. It is difficult to answer concisely as broad a question as that.

Q. In the lead industry for instance, you would agree, Doctor, would you not, that the men should be furnished with gloves and with working clothes? A. You cannot wear gloves in all the lead industries by any means, but where possible, it is desirable.

Q. How about supplying the employees with the clothes to work in in these industries? A. I do not think that is so important in the lead industry, perhaps, as in some others. There are detailed employments in which it is desirable. They do not carry away much lead in their clothing, and it does not hurt their clothing particularly. The difficulty, so far as lead is concerned, is a double one. It is the pulverization of lead, in filings, to breathe it into the lungs, and getting lead into the mouth and swallowing it. In the lungs it is irritating, and, of course, respiratory diseases, bronchitis, hardening of the lungs, &c., follow, and we have neuritis, hardening of the arteries, chronic diseases of the kidneys, enlargement of the heart, aneurism, and so on.

Q. You believe, then, that the subject of occupational diseases and poisoning presents a comparatively new field for inquiry in this State at any rate? A. It is absolutely new from the statistical point of view, in the United States. The question has been studied in France for two or three decades, and in England for nearly as long, and in Germany, perhaps; but it seems to me that,

as I said before, the first thing for us to do in this country, in this State, is to obtain data regarding the most important occupational diseases as to their extent and prevalence. If they are anything like as extensive and hazardous as they seem to be to a few of us who have come in personal contact with them, the question comes up as to how best to deal with them. With caisson disease, it is a very simple matter. That is a very definite disease, definite symptoms, absolutely definite causes, and absolutely definite prevention. If I am not mistaken, there is a law which covers that question now, but the fact that 3,692 cases occurred here in this city within a few years, of varying intensity, twenty of them being fatal, points its own conclusion. With lead poisoning the problem is a very difficult one, more so than with any other metal poisoning, for the reason that with some people the effect of lead may last through fifteen or twenty years. A man may change his occupation several times. He may have been permanently injured as to his kidneys and arteries from ten years of work in lead, early in life. He might die earlier than he would otherwise on account of that injury, although he has changed his occupation; and it is the insidious effect of such poisoning that really does the most harm in my opinion, in the long run. It is easy to go to a factory and pick out cases of acute lead poisoning. It is easy enough to recognize them, with the patient's health broken down absolutely, and he comes into the clinic with his wrists hanging down, technically known as "drop wrists" position. Any layman knows that is lead poisoning. The point is to stop that condition and to recognize its possibility very much earlier. That can be done by modern means of diagnosis, early examination of all the patient's secretions and blood, blood pressure, and all such things, by expert medical examiners appointed for that purpose to go through the factory periodically, once in a year, at stated times, and thoroughly examine all patients employed in the industry and try to detect the early changes of the kind described.

Assemblyman PHILLIPS: So there are really two remedies: First, to protect the individual from being injured, and the other of trying to prevent the injury itself.

The WITNESS: Yes.

By Miss DREIER:

Q. Have not we got enough data from the European investigation, if not over here, to know certain things, so that we can remedy certain conditions now? You spoke of 3,000 cases of lead poisoning, was it? A. Of caisson disease.

Q. Don't we know enough of conditions to know that certain remedies can help? A. I think so.

Q. Certain remedies which we could immediately inaugurate to help to prevent disease? A. I think so.

Q. Have you taken up the question of effect of long hours of labor upon men and women? A. I have not.

Q. Not at all? A. No. Lead poisoning presents another difficulty, and that is a man using lead, and most subject to lead poisoning, may not work in any factory or institution at all. He may be a house painter in one of our houses, and get his lead poisoning, not from putting on paint, but from using sandpaper on old paint somebody else has put on some years before, which makes it a very complicated question to deal with by legislation. But we all ought to cooperate in my opinion — physicians primarily — in disseminating more information about the matter. I think operators in factories should be given leaflets showing how they can take care of themselves, in the same way that they are now given leaflets by the United States Steel Corporation to show how to prevent injury and accident. All this ground has been pretty well gone over in injury and accidents, yet the disease phase of the subject is comparatively new.

Q. Isn't the first thing to do, then, Doctor, to have this unpaid board of medical advisors to assist the Commissioner of Labor in the formation of rules and regulations and in spreading such information among employees and employers as they lack? A. I should say so, decidedly.

By Assemblyman PHILLIPS:

Q. With regard to the three thousand cases of caisson disease, how long a period does that cover? A. The period of the construction of the Pennsylvania tubes under the East and the North Rivers. I have forgotten how many years.

Q. Do you know how many employees were employed?
A. Ten thousand.

Q. So three thousand were affected? A. A little more than one man in three had symptoms of caisson disease at some period of his employment.

Q. How many of those were serious? A. Twenty died.

Q. Did any of them have permanent paralysis? A. I believe they did; yes. I have seen a number of such cases myself — not in that particular series.

Q. From your knowledge of caisson work, do you feel that it is unavoidable, that a large percentage of the men who enter that work are bound to be physically ruined within a comparatively short time? A. I do not think the labor under compressed air is especially harmful if properly safeguarded, and the essential difficulty is the impatience of the men to get out of the caisson, and their being allowed to do it when they want to.

Q. As I understand it now, the law requires that they shall stay in the outer lock for one minute for every pound of pressure they have been under. I presume the employer does not like to have them stay there any longer than necessary, because it stops the work below, and I understand the men themselves are impatient; they don't want to stay? A. Yes, that is true.

Q. They don't like to stay in the lock forty minutes? A. And they are going back again and again, though they have had caisson disease. I had a man in my ward of Bellevue Hospital last week, who went back in spite of every warning, and came in with complete temporary paralysis.

Q. I suppose that applies to human nature generally? A. That does not absolve us from our duty in giving the warning.

Q. The law now with regard to caisson workers is not being enforced, is it, so far as you know? A. I should judge not, from the statistics of Dr. Keays.

Q. Do you think if it was enforced that there would be very slight danger of the men suffering from caisson disease, the bends? A. I am not familiar with the details of the law, but if a proper law were enforced, I should say there would be very slight danger. I do not know whether the present law is adequate.

Q. What have you in mind as to a proper law? A. What I was questioning was the amount of time which the law requires.

Q. I think now it requires a minute for every pound of pressure? A. I should not think that was long enough by any means.

Q. You don't think so? A. I think not.

Q. I am not sufficiently familiar with the engineering part of it, to know whether they could provide an outer lock in which the men could stay without interfering with the work below. As I understand it now, on the Woolworth building, they were down three hours; then that meant staying in the outer lock forty minutes, and all work below was suspended during the forty minutes, which meant forty minutes waste time at the end of every three hours.

The CHAIRMAN: I would suggest they ought to work in shifts, then the work would not stop while the men are in the outer lock.

Assemblyman PHILLIPS: They do work in shifts, but they cannot go down there. These men fill up the outer lock, I understand. There is only room in the outer lock for three or four men to stand.

The WITNESSS The patient I just referred to had been under three to four atmospheres of pressure up in the Aqueduct channel, sixty pounds pressure.

By Assemblyman PHILLIPS:

Q. One question on lead poisoning. Of course, shortening the hours of labor would shorten the amount of contact with lead poisoning, but would not the fact that they could then get out in the fresh air furnish an antidote to lead poisoning? A. No, sir.

DOCTOR WOODS HUTCHINSON, called as a witness, being duly sworn, testified as follows:

Examination by Mr. SHIENTAG:

Q. Doctor, you are a practicing physician? A. Yes, sir.

Q. For how long have you been a practicing physician in New York City? A. New York City?

Q. Yes. A. About four years.

Q. From what medical college did you graduate? A. The State University of Michigan, Ann Arbor.

Q. Did you visit many factories and manufacturing establishments in this city? A. To a limited extent.

Q. Will you describe to the Commission the conditions in factories and manufacturing establishments that you have visited, Doctor, from the point of view of ventilation? A. The only group of factories —

The CHAIRMAN: I might suggest that the Doctor tell us under what circumstances he visited the factories.

The WITNESS: The only group of factories I have visited in the city were the shirtwaist group, during the shirtwaist strike a year ago last winter, I think, and I visited, I think, ten, twelve or thirteen of these factories to investigate their sanitary conditions with a committee appointed by the "Survey," the Charity Organization Society paper. The entrances and exits were very complicated, made so by wooden partitions; the air and light entirely inadequate, and the toilet facilities were, as a rule, bad.

Q. How was the ventilation in those factories, Doctor? A. It was not good.

Q. Have you gone into the subject of tuberculosis or industrial consumption among the factory workers? A. Yes; to some extent.

Q. Will you tell the Commission the result of your observations on that subject? A. Well, it is rather a large subject; in what particular aspect?

Q. To what extent is tuberculosis prevalent among factory workers and employees? A. It is exceedingly prevalent among factory workers and employees, and something like seventy per cent of those suffering from tuberculosis are those engaged in factories or salary-earning occupations, and about thirty per cent of the deaths that occur among a group of factory employees are due to tuberculosis, while in the rest of the community only about twelve per cent of the deaths are due to tuberculosis.

Q. To what do you ascribe that much larger percentage in the case of factory workers? A. There are of course a number of elements that enter into it, but a very large share of it is due to confinement and bad air, and often to injurious dusts that are produced in the process of manufacturing. The two trades that have the highest percentage of tuberculosis are the cigarmakers and cigarette makers, who work, of course, as a rule under very unfavorable conditions as to ventilation, and who work in an atmosphere filled with poisonous dust; printers and compositors, also work in an atmosphere exceedingly full of dust, and usually in rooms which are rather badly ventilated.

Q. What measures would you recommend to prevent this widespread disease among factory workers? A. Well, there are a number which would have a very marked effect, I think, in reducing that. One of the most important would be, I think, the reduction of the hours of labor. The longer that an individual is exposed to the fumes and the dust and to the confinement and bad air, the lower his resisting power of course becomes, and an individual working, say ten or eleven hours a day, would readily have his health impaired and fall a victim to tuberculosis, but if he worked only eight hours a day he would be able to keep himself in condition, vigorous condition, to resist the attack of the disease. The occupations which have the longest hours and the most confined conditions are those which have the highest death rate from tuberculosis.

And another important element, of course, is the ventilation, proper ventilation of the room during the time that the industry is carried on, and still another, of course, would be the guarding of the workers from the fumes or dust or injurious lints or whatever it is that may be in the atmosphere, by proper methods of protecting the machines, or cleaning the room, or of avoiding it getting into the air and getting into the lungs of the workers.

Q. Would you recommend, Doctor, a certain system of ventilation in dust-creating industries to remove the dust at the point of origin? A. Yes, that should be done by providing some form of covering — suction hoods over the machines or retorts or fumes or whatever it may be that is producing the dust. A great deal of that can be sucked right up and carried out to the outer air and prevent it getting into the lungs of the workers.

Q. You spoke of the hours of labor, Doctor. Do you think that any distinction should be made as far as hours of labor is concerned in the case of so-called dangerous or hazardous occupations? A. Yes, because when occupations are dangerous by virtue of giving off poisonous fumes or dust, such as the lead industries or industries involved in the manufacturing or handling of lead, then the shorter the time the individual is exposed the less poison he will take into his system and the greater resisting power he will have to throw off or neutralize that poison, and off-set its effect on his system. Then, the industries where the extra danger comes from the hazardous nature of the occupation, such as certain industries connected with the smelting of iron, and with the manufacture of iron, and forges, blast furnaces and with certain chemical industries, the shorter the hours of labor, the less liability there will be for dangerous or fatal accidents to happen. Factories have now been studied as to the occurrence of even accidents in those trades in which there is danger, and it is found that accidents are invariably less in the early hours of the morning and rise steadily in an increasing frequency until the noon hour; and again after the noon hour at a lower rate, and rise steadily until the shutting down at night. The longer the hours the more will be the fatigue, and more will be the lack of control and the greater the indifference of the workman,—and the more liable he will be to become involved in some serious and maybe fatal accident.

The CHAIRMAN: That evidence we had this morning, the statistics show the accidents occur mostly at the time when the laborer is weary.

The WITNESS: Yes, sir.

The CHAIRMAN: Such as just before noon hour and just before quitting in the evening.

The WITNESS: Yes; that was the curve of which I spoke. There is a very slight rise on that, just at the starting time of machinery,

when there is a slight increase in the accident curve, and with that exception late in the day, or late in the afternoon, the greater the frequency of accident.

Q. Would you recommend a Bureau of Inspection in the Department of Labor? A. Yes, sir, I would.

Q. Would you also recommend the establishment of an unpaid Board to formulate rules and regulations of labor in the different industries? A. I do not know about the unpaid part of it, but I would certainly recommend the formation of such a Board.

Q. Of experts to advise the manufacturer? A. Yes.

Q. Why do you say, Doctor, that you do not know about the "unpaid" part of it? Don't you think it would be feasible to have an unpaid Board of medical experts? A. Oh, yes; doctors are very self-sacrificing and public spirited, I have no doubt at all that you could.

Q. Have you devoted any study or given any attention to the employment of children in industries, Doctor? A. Yes, I have.

Q. Do you think that there ought to be a thorough physical examination of children before they get their working papers? A. Yes, there certainly should be.

Q. Do you think that the present physical examination — that is examination whenever in the opinion of the physician who looks at the child that seems to be necessary — is sufficient? A. No, I do not think it is sufficient; it is an improvement, but I do not think it is adequate.

Q. You think there ought to be a real and thorough physical examination of every child? A. Yes. That has already been introduced in some of the Continental states and cities. Every child that wishes to enter industry is compelled to pass a certain definite physical examination and comply with certain standards before he is allowed to enter that industry.

Q. Would you recommend, Doctor, the periodical physical examination of any child in industry up to a certain age? A. Yes.

Q. By whom would you say such examination should be made, by the Local Boards of Health from time to time? A. Yes, I should think so, if the staff of the Local Board was adequate to the situation. I think it should be done by some medical board appointed to take care of that particular consideration and have that particular function, in the larger communities.

Q. How can the employment of women immediately before and after childbirth be prevented, as a practical matter? A. Well, of course, that is largely a matter of executive detail, because, broadly speaking, the wise way to do that is to give a decent living wage to the woman's husband, but I don't know whether that would come within the scope of the Commission.

Q. Well, you think it certainly advisable to prevent the employment of such women? A. Oh, it is not only advisable but absolutely necessary. Between two-fifths and three-fifths of all the deaths of children under one year of age are due to the fact that they are born half starved on account of their mothers having been subject to the double strain of supporting the new life and earning a wage at long hours under bad conditions.

Q. And does that also apply to the employment of women immediately after childbirth? A. Yes, that would also apply to the employment of women immediately after childbirth.

Q. The rate of infant mortality is much higher, Doctor, where the mothers are employed immediately after childbirth and immediately before childbirth? A. The rate of infant mortality is higher in direct ratio to the number of women employed in factory or other industrial occupations.

Miss DREIER: Would you suggest a state insurance for pregnant women?

The WITNESS: Well, that, of course, is the measure which is introduced and relied upon in Germany — and if the present insurance law is passed, as I suppose it will be, in England. That standard has been adopted in those two countries.

Miss DREIER: I should like to ask you whether you think that there ought to be a difference of limitation of hours for men and women? Is the effect of long hours the same on men as women?

The WITNESS: It falls very much more heavily on women than upon men.

Miss DREIER: We had a statement here the other day that bakers worked eleven, twelve and sixteen hours a day. What is the effect of those hours upon the bakers?

The WITNESS: Well, I could only conceive that it would be very decidedly deteriorating; that it would impair their health and render them practically incapable of taking the proper sanitary precaution, and to make them indifferent and reckless as to the conditions under which they worked.

Miss DREIER: Would you advise the limitation of hours of men at all, or how would you meet that situation of the bakers, for instance?

The WITNESS: Oh, by legislation upon the subject.

Miss DREIER: Limiting the hours?

The WITNESS: Yes. There should be a standard maximum length, I think, of the hours of labor for adult men for different occupations, and another for women and another for children of various ages, graded according to the age and condition of the worker.

By Mr. SHIENTAG:

Q. Would you recommend, Doctor, the compulsory physical examination of employees in bakeries? A. In bakeries?

Q. Yes. A. I should advocate the compulsory physical examination of all employees in all factories, certainly all concerned with the preparation of food stuffs. That is already carried out, of course in a number of continental cities.

Miss DREIER: Do you know that we have a law now limiting the hours of labor for women to sixty a week? Do you think that is too long, or what do you think about it?

The WITNESS: Well, that is decidedly too long.

Miss DREIER: How long would you make it?

The WITNESS: Not in excess of forty-eight.

Miss DREIER: And what about children? We have this law for children up to sixteen, eight hours?

The WITNESS: That is more than double what it should be. Several of the municipalities of Europe have adjusted that matter by establishing the two and three day shift for children, and they will not allow children to be worked more than four hours a day at a certain age and from that up, and they arranged it with the employer by getting him to employ three times the number of children and then change the shifts two and three times a day and the employers now find that they get better work and better results than they did by working one shift of children for a longer period.

Miss DREIER: You advocate a minimum wage for workers?

The WITNESS: Yes.

Miss DREIER: For woman and children, or what for?

The WITNESS: Women and children and men.

Miss DREIER: For every one. You cannot give us any opinion about the amount of wage, or have you thought about that at all?

The WITNESS: Well, that would depend upon the amount of necessities of life that that wage will buy. I do not think any community can afford to allow any one of its members to work for a wage which is less than he can keep himself or herself and his dependents in decent health upon. If he does not, somebody else has got to pay the bills later.

Miss DREIER: You think a man's wages ought to be enough to support his wife and children?

The WITNESS: Yes, emphatically.

Miss DREIER: It would be difficult for us to do that, wouldn't it, Doctor, by law?

The WITNESS: I am not saying what this Commission could do, but I am simply stating my own opinion.

Senator HAMILTON: Doesn't the class of occupation have a great deal to do with the hours?

The WITNESS: Yes, the character of the occupation.

Senator HAMILTON: And the surroundings, the ventilation, whether it is the open air.

The WITNESS: Yes.

Senator HAMILTON: Or, for instance, wouldn't it make a difference about the number of hours that would be safe for children and women to work, whether they were employed in the canning factories, or in garment working trades?

The WITNESS: I do not know about that particular situation, because the conditions in canning factories I understand are very serious.

Senator HAMILTON: I mean in the sheds sorting fruit and so on.

The WITNESS: Of course there is a certain minimum that is pretty nearly fixed by the continuation of one definite thing on the part of each and every individual that may make that detrimental to his or her health, and that becomes more strikingly apparent and it is more injurious in the case of women and children than it is with men.

Senator HAMILTON: You think in regard to the lead workers, do you, that the shorter hours would help there?

The WITNESS: Yes, I think it would help them. Of course, that depends somewhat on the nature of the lead work. There are

some forms of lead poisoning in which the lead is not diffused through the air but in which it is really conveyed to the mouth of the worker upon his or her hands, and in that case if the hours were so shortened that no meals could be consumed on or near the premises or even snicks or snatches taken, that would markedly diminish the liability to lead poisoning. If the hours were so shortened that the employees did not become hungry while in the factory, that would diminish the risk.

Senator HAMILTON: It would help quite a little if they are not allowed to eat on the premises?

The WITNESS: Yes, they will do it though.

By Mr. SHIENTAG:

Q. Doctor, have you made any study of the subject of registration of factories and manufacturing establishments? Do you think that all factories should be required to register? A. Yes, I think they should be required to register and take out licenses.

Q. You think they should take out licenses and have an inspection of the entire construction of the plant, before it is permitted to be opened? A. Yes, sir.

The CHAIRMAN: Thank you very much, Doctor.

P. TECUMSEH SHERMAN, being sworn by the Chairman, testified as follows:

Examination by Mr. SHIENTAG:

Q. What is your occupation, Mr. Sherman? A. At present attorney and counsellor-at-law.

Q. And were you formerly Commissioner of the Labor Department of the State of New York? A. Yes, sir; for about three years.

Q. When? A. From some time in 1905 to 1907, about two years and a half.

Q. Commissioner, do you consider the present system of factory inspection in the State of New York adequate? A. No, I do not;

I do not, no. It never has been and I do not think it is yet, even with the provisions made last year to enforce the laws and to carry on the investigations very rapidly. I think that with the force of about 85 factory and field factory inspectors, which I calculate they will have next year, it will take about five or ten years to get thoroughly up to date. I think there is some advantage in going slowly, but I do not think you can quite cover the field with even the present force now, and you can only do that if you have very full co-operation from other departments, city departments.

Q. How many inspectors do you think that the Department of Labor should have in order to cover the ground fairly adequately?

A. Well, I think they have got pretty nearly enough, because I think it is better to go a little slowly, and I think that the provisions should be made for the Fire Department or some Department in New York city to take up specific factory dangers in cities and high buildings to a certain extent, and I then think the factory inspectors should have some more scientific men added. It would be better to recognize the fact that it will take years to catch up to date and go ahead on that basis.

Q. Would you recommend, then, that the force of the Commissioner of Labor be increased? A. Oh, about one hundred.

Q. About a hundred? A. Yes.

Q. You would recommend an increase to about one hundred ordinary inspectors? A. Yes, in the field.

Q. And you also say you would recommend the employment of technical experts? A. Yes.

Q. Of what kind? A. Well, in the line of industrial safety and mechanics, sanitation, ventilating engineering and particularly in general mechanics, so that they would be to study up the question of industrial safety and become highly expert.

Q. Do you think the violation order should be sent direct from several offices of the Department, rather than through the Albany office? A. I do not see that that makes very much difference; that is a question of administration that I would leave to be worked out in practice. The orders, whether they are issued from Albany or from any other place, have to go by mail and they go about as fast one way as the other. I can't see that it makes very much difference.

Q. Well, isn't there a delay of several days sometimes when the orders are transmitted to the Albany office? A. Yes, but there would be a delay of several days if it went from the same city. I do not think there is much loss of time incurred from just going to Albany and back. Of course, there may be an advantage in having all orders go out from New York or Buffalo, but I would leave that point as a matter of administration and not fasten it on the Department, for it might necessitate a large increase in office force in one place instead of another, and a duplication.

Q. Well, do you think there ought to be a Bureau of Medical Inspection in the State Department of Labor? A. Not exactly a new Bureau.

Q. I don't mean a new Bureau. A. I think the Bureau of Factory Inspection should be a complete Bureau to cover that whole subject.

Q. Well, a division, then? A. Yes. Oh, I think there should be in that Bureau a board of Medical experts in different lines, who could direct and advise the ordinary field inspectors and who could carry on investigating work in various lines. It would not be necessary to duplicate the safety inspection by another line of sanitary inspectors, but simply have a sufficient number of sanitary experts to direct the whole force and take up special cases.

Q. How many such medical or sanitary experts do you think the Department of Labor should have? A. Well, I could not say, I do not know. Not so very many, Four or five or may be nine or ten.

Q. I see. Do you think, Mr. Commissioner, that the Commissioner of Labor should have the power to make rules and regulations covering accident prevention and sanitation in the different industries? A. Well, I think somebody should, but I do not believe myself ever in having the officer who enforces a law make the rules and regulations or exercise the very broad discretion that would be thus confined. That discretionary power to make rules and regulations ought to be conferred on some other officer or board upon the motion and suggestion of the Commissioner of Labor.

Q. Well, what would you say, Mr. Commissioner, to the appointment of an unpaid board of medical experts to pass on such rules

and regulations? A. I think it would be a very good idea, and also of technical experts in safety. I think a number of experts of that kind could make rules and regulations and make them sufficiently elastic to fit the actual conditions. The laws if you push them very far, do harm in a great many cases, while good in a great many cases, whereas if you have a number of experts making rules to fit all cases—making exceptions to fit cases where the rules should not apply—you get a much better system, I think, than any other way.

Q. How should those rules and regulations be revised and changed from time to time? A. I think on the suggestion or motion of the Commissioner of Labor and after public notice, and particularly after hearings on the part of those interested. That is practically the English system, and it worked satisfactorily there and does very well, I think.

Q. You think that such rules and regulations are necessary and that it is impossible to fix a standard, definite standard in the law to cover all the industries? A. Yes.

ASSEMBLYMAN PHILLIPS: I suppose Commissioner, the standard will vary from year to year as they get new experience and new knowledge of things?

THE WITNESS: Standards vary all the time, especially in the more technical lines of safety; that is all the hard and fast rules. You know absolute rules are out of date sometimes in a year. Conditions change and even in this city, for example, there is a marked change in the factory buildings. Formerly clothing factories were all in old tenement houses and now they are all in loft buildings. The conditions of safety have changed. That same process is going on all the time in all the relations of safety in factories.

ASSEMBLYMAN PHILLIPS: That is, if a statute says machinery shall be properly guarded, then you must have rules and regulations to define "properly guarded."

THE WITNESS: Yes.

Examination by Mr. SHIENTAG:

Q. Then you think there should be rules and regulations to advise the manufacturer of just what was required of him? A. Yes, I think so.

Q. Do you think, Commissioner, that there ought to be a Museum of Safety or some similar institution established as a branch of the State Department of Labor? A. I do not know whether it ought to be a branch of the Department of Labor. I would like to see the National Government establish some such institution, and if not established by that government, I would like to see the State subsidize or aid any private institution that maintains such a Museum. I believe there is one started in this city now. I think it would be a little hard for the State Department of Labor of this State to maintain such a museum. It ought to be operated to be good. That is, it ought to have power; the machinery ought to move. And there are a great many questions coming up all the time as to what device you shall install and what you shall reject. It would be rather embarrassing to a State Department to exercise that discretion, because there would be a good deal of pressure as to what it is to take and what it is not to take. But I think the State Department should have hand books, and give out books of instruction for the factory inspectors and for employers to advise them generally, showing drawings of devices and things like that.

Q. You think, then, the State Department of Labor should issue descriptions and lists of safety devices from time to time for the benefit of employers and employees? A. Yes.

Q. Do you think also the State Department of Labor should issue instructions to employers, manufacturers, calling attention to the dangers in each particular industry and what precautions can be taken to avoid them? A. Oh, yes.

Q. Mr. Sherman, do you think that there ought to be a compulsory system of registration of factories and manufacturing establishments in this State? A. It would be very nice if every factory when it was established would notify the Department, but the trouble is, compulsory registration would mean that if somebody did not register you would have to fine him, and I think we would start in for about ten years fining everybody that moved every year because they had not registered. It is a pretty hard custom

to get established. I think, however, that it would be a good idea to enforce some of our factory laws by resorting to a license system and requiring the employer to take out a license. For instance, to establish a factory high up in a loft building, I think he should take out a license. I would not make the failure to take out that license a crime, but I would say that he had no right to run his factory without a license, so that he could be enjoined from continuing without a license. What I mean by that is, where you are going to place any special obligations on the manufacturer to avoid danger, make him take out a license, so as to show that he has complied with those, and so that if he has no license, you can immediately stop his operations, subject to his right to get an injunction and to be protected in court from unfair processes.

Q. You think, Commissioner, that a man before he opens a factory ought to file plans or descriptions of the interior construction of the factory and the placing of machinery? A. I do not think that can be, because a real manufacturing plant with machinery is a constantly growing and changing thing. They move in and build as they go along, so that machinery, really, is not very much established, it is changing, moving up and being fitted in and I do not think that would be very practical.

Q. Do you think there ought to be an inspection by the State Department of Labor before the factory is permitted to be opened and operated? A. Well, that would be pretty hard on the employers because, suppose the State Department of Labor did not furnish the inspection promptly, it would tie him up. Now the Department of Labor has a force of inspectors who inspect each factory only once a year, and Up-State only at convenient times, when the inspector is in that neighborhood, and down here they could not make all the inspections on the first of May that were required, so that you would have the factory proprietors in something of a fix when they wanted to move.

Q. Well, assume that we had an adequate force of inspectors for the State Department of Labor. A. If you do, and you are talking about increasing the force for every purpose of that kind, there are about one hundred different purposes that you could accomplish by an increase in your force. You want to avoid increasing the force.

Q. How would you do away with a situation of that kind? If a factory was opened in the city of New York the Commissioner of Labor would know nothing about that factory unless an inspector in his Department stumbled across it. What would you suggest to remedy that situation? A. I do not know of any suggestion to remedy that, except to go along and allow time for the factory inspector to get around.

Q. How about a system of registration; would not that be very simple, assuming that you could enforce it? A. Providing it would work, yes.

Q. Commissioner, while you were in the Department I suppose the subject of occupational diseases, and poisoning, was given some consideration? A. All I know about that is that I have studied it in foreign publications and noticed that we know nothing about it. We had nobody in the Department at that time that knew anything about it, and that was always an important subject, and it ought to be taken up and studied carefully. That is about all I know of it.

Q. And you think that is an important subject and ought to be studied carefully? You still think to-day it is an important subject and ought to be studied very carefully? A. A very important subject; yes, sir.

Q. Commissioner, what measures would you recommend to prevent the employment of physically unfit children in industry? A. Well, I think that we rely too much now on the age limit — the age at which children may be employed. When they are over sixteen years of age for some things they may not be employed, and when they are under sixteen — between fourteen and sixteen — they have to get a Board of Health certificate. Those certificates are good for any kind of employment. For instance, if a child gets a Board of Health certificate, that child may be employed at a pretty hard task in a factory workroom, for which it is not fitted, but it might nevertheless be fitted for work in an office or some light, easy place. I do not see why the factory inspectors should not have authority to require the discharge of any minors found employed under improper physical conditions, subject to review by the Board of Health.

Q. Would you say, for instance, Commissioner, that when working papers are taken out that they should specify the industries

in which the child may be employed, or specify the industries in which the child may not be employed? A. That would be a great improvement; but the trouble is the children come right after school is out; they pile into the Board of Health very fast. It issues thousands of these certificates, and they do not know what job they are going to get, and the Board of Health is in a rush. It is not able to inquire into the particulars very fully, so they just give one class of certificate. And I think it would be easier and would require less attention and less trouble to everybody simply to permit the discharge of a minor found working under physically improper conditions. If a factory inspector could discharge such a child, then the child could go to the Board of Health, and if the Board of Health did not sustain the factory inspector, they could give a special certificate in that case.

Q. You think they ought to give the factory inspector such right, and up to what age? A. You might as well say up to 21. They are minors. For this reason: The age limit is the one thing very hard to prove. The foreign laws about children run up to eighteen, but you cannot prove the age of eighteen to save your life, so that if you simply make your law applicable to minors, with the understanding that it is only going to be used up to about eighteen years of age, that understanding would come true.

Q. What would you say as to a periodical physical examination of children and a renewal of their working papers from time to time? A. By the Board of Health?

Q. Yes. A. That would be very good, but that would require a heavy additional force in the Board of Health.

Q. Does the importance of the subject warrant an increased expenditure? A. I hardly think so. I think that could be handled in the other way. There are so many lines in which you can run up your force, if you start to do it.

Q. Well, we want to economize and get the best results, Commissioner. Have you any suggestions to make to the Commission with reference to the adequacy of the existing law relating to hours of labor for women and children in industries? A. The law limiting the hours of labor of women is not enforced here very strictly. It is not enforced in any State in the United States; it is not enforced in France; it is not enforced in England, and I have heard

that it is not enforced in any other part of the world, and it is a very difficult proposition. When I say that 100 factory inspectors are necessary or proper or adequate I exclude that, because one thousand would not enable the inspectors to watch and detect all violations of the law. I think that question would have to be left to the labor unions pretty largely, to work out for themselves. They can enforce the hours of labor law, and if they cannot, there is not anybody that can. But the foreign laws allow a little more. For instance, they are not so flat as our laws. Our laws provide, for instance, that sixty hours a week is the absolute limit. The foreign laws allow canneries to work longer hours. They allow seasonal industries to work longer hours under certain conditions. They permit special permits according to efficiency for longer hours, and in that way they manage to get the law so that it looks a little bit more in force than it is here. The canneries up the State work just as long as they please, and every year or two the factory inspectors prosecute them all and get licked, and they go on that way, and it is pretty much that way about all that law. I think myself that the present movement to make the law as to the hours of labor for women more strict is a mistake, because it would be better to use the law simply as a limit beyond which employers must never go. Then you could punish them and fine them in all cases where you caught them. But as it is now it is something like the Tenth Commandment, follow it, if you can, but if it is not convenient, do not.

Q. What would you say, Commissioner, constituted the principal difficulty in the enforcement of laws limiting the number of hours of the employment of women and children? A. The principal difficulty is to get your evidence, and to get a judge or a jury to convict.

Q. Commissioner, how would it be practicable to limit the employment of women immediately before and after childbirth? Have you given that matter any consideration? A. I believe in all the countries of Europe that is provided for, and I think very strictly enforced. I do not know whether there is any particular call for it here. I do not know whether that ever happened. The punishment in such cases is pretty severe, and generally inflicted.

Q. The Commission has received testimony to the effect that women are employed practically up to the very day or the day

before childbirth. There is no law on the subject in this State?

A. No law here.

Assemblyman PHILLIPS: To what extent are they employed, do you know?

Mr. SHIENTAG: They are employed in ordinary occupations, some of which involve manual labor, hard manual labor.

Assemblyman PHILLIPS: Why are they employed, are not their husbands taking care of their families?

Mr. SHIENTAG: In a great many cases the wages of the husband are insufficient.

Assemblyman PHILLIPS: Let us get back to the cause, then.

Mr. SHIENTAG: That is what I would like to get the Commissioner's suggestion about.

Q. Pardon me for taking you over the entire realm of the labor law, but we would like to get your views on these various matters, Commissioner. Would you recommend that the use of cellars for bakeries should be prohibited, first, in the case of bakeries that are already in existence? A. Cellar bakeries?

Q. Yes, cellar bakeries. A. I do not know where they would go to, and if they are driven out of existence I do not know where the bread will be baked, and who will be able to pay the rent for a better bakery.

Q. In Chicago, it was testified before this Commission, they have abolished cellar bakeries, and the bakeries went up higher, in the upper stories. Do you think that such a plan would be feasible with reference to the existing bakeries in this city? A. Be what?

Q. Be feasible or practicable or advisable. A. You could do it, drive them out, the cellar bakeries, but I think it would work a good deal of hardship.

Q. Well, in the case of bakeries to be opened in the future, do you think the use of cellars for such bakeries should be prohibited? A. I would like to prohibit them, yes, but it would be

a pretty drastic thing to do here in this city. It is a pretty hard thing to get any place for a bakery without paying a very high rent. Cellars seem to be the only available places.

Q. Commissioner, what would you suggest that would tend to do away with the present duplication of inspections in the various city and State departments?

The CHAIRMAN: Commissioner, before you go on with that, I would like to ask you where the evidence before us shows that the bakeries, ninety per cent of them, that have been inspected, are in absolutely filthy condition——

The WITNESS: You ought to have seen them five years ago. I have been through a lot of them in the course of the last month or so, and they are very much improved from what they used to be. They are gradually getting better. I do think they are filthy and ought to be stopped, but I do not know where the bread would be baked if it were not in those bakeries. I think that gradually the conditions can be made better and that gradually they can be forced to have better shops.

The CHAIRMAN: Where conditions are as they have been described before the Commission, don't you think the Legislature would be justified in using drastic methods to eliminate them?

The WITNESS: Entirely justified, yes, from that point of view. I have always thought, though, where would those bakeries go. If you go down and look at them through the lower part of the city you would wonder where bread would be baked, where would those bakeries move to? You are putting a lot of people out of business and perhaps raising the price of bread. I do not know; it requires a study, you know, but things are getting a little bit better, slowly, and I am not certain whether or not that would not be a pretty drastic remedy, not against the worst ones, but against the best of that class.

The CHAIRMAN: The Commission had in mind principally making the provisions of law more drastic as to future bakeries, not so much those that are in existence now.

The WITNESS: Well, yes, that would be all right, but I think some of those in existence now are the ones that really want the remedy. Take, for instance, a store, a confectionery store, something like that, and they establish a nice bakery in the basement. Now, if you say they cannot do that in the future, how are they going to make that combination? They cannot do it very well in the upper stories. A bakery is a pretty hard thing to have upstairs. I am talking about a store building, you know.

The CHAIRMAN: Of course I do not know, myself, except that we have had before us one witness, or I think two witnesses, who have said that in Chicago the scheme has worked very well, the elimination of the cellar bakery. Do you know anything about that yourself?

The WITNESS: No, I do not know anything particularly, but Chicago is a very big city in space, and land there in the outer parts of the city is very cheap, and the building rents — except in the central part, they are about as high as they are here — are very slight, and the difference between getting your space and getting your accommodations there and in New York would be quite a serious thing, I think.

Assemblyman SMITH: From the standpoint of cleanliness, if the baker does not want to clean the place, will it be any cleaner on the third floor than if it is in the basement?

The WITNESS: I think so, yes. In the basement, things sort of drift in.

Assemblyman SMITH: Do you think a basement naturally gathers dirt?

The WITNESS: It does, a little bit, yes.

By Mr. SHIENTAG:

Q. Do you think in the city of New York, for example, that the Department of Health should have sole and exclusive juris-

diction over bakeries? A. I do not see any particular advantage one way or the other. I think the factory inspectors might just as well take care of them. The Health Department has additional jurisdiction, but I think it is a little more in accordance with the line of the factory inspectors to take the bakeries.

Q. Is it not more in accordance with the line of the Health Inspectors to examine places where food stuffs are made? A. Yes, a great many factories are engaged in manufacturing food stuffs. That is a great branch of industry.

Q. How about giving the Health Department jurisdiction over those factories; they inspect them, anyhow? A. The situation is somewhat this way: A large proportion of the bakeshops are real *bona fide* factories, and should be inspected for safety and other things like that. And at the same time the Board of Health come in whenever they want to and do some things that are necessary, so that it would be hard to draw the line with the factory inspector. There is no reason why the Health Department should not give them an inspection if they want to.

Q. Do you believe in this duplication of inspections and of this concurrent authority and jurisdiction? A. It is not concurrent. The factory inspector is responsible but the Health Department has authority. The Health Department's authority is absolute over everything in regard to health.

Q. Don't you think one department should be given sole supervision over bakeries and that would tend to avoid this so-called shifting of responsibility? A. The trouble about that is that the Board of Health would have to assume jurisdiction not only over the health of the bakery, but over the safety of the bakery.

Q. What do you mean when you refer to safety? A. As to the machinery or power or anything like that, and the hours of labor, for instance. The factory inspector does go in about those things. The Board of Health would have to take that jurisdiction. The factory inspector has jurisdiction and general responsibility.

Q. What would you suggest, Commissioner, that would tend to do away with the present duplication of inspections by various city and State Departments in the city of New York and elsewhere? A. I do not think there is very much duplicate inspection, as far as the factories are concerned. There is not very

much inspection. You know it is done in routine, it only comes about once a year, the factory inspector gets around, a little more than once a year in New York city, so it is not duplicated, that is not any very great hardship. When it comes to the buildings in this city, the loft buildings, you have got to have the Building Department see that the building is properly built to start with, the factory inspector has his line of subjects, and it seems to me the Fire Department should be primarily responsible and should be equipped to take care of the general subject of safety from fire to people employed in these buildings.

Q. Commissioner, you stated once or twice, I believe, that these factories were inspected once a year. Do you consider that inspection adequate? A. Well, not to produce results immediately, but it will produce results after a while. What I mean by that is that if everything is found all right, there is only that one inspection. If there is anything out of the way they come back and they come back to enforce the law, or to observe again, but I think that in the great majority of factories proper one inspection a year furnishes full inspection, about all you can give. That is all any other country gives.

Q. It has been suggested to the Commission, Commissioner, that it might be advisable to establish a Bureau of Inspection in the city of New York, whose function it shall be to inspect all factories and manufacturing establishments, report existing conditions to the city department responsible for the enforcement of the law, leaving the enforcement of it to these different departments, to see that the law is complied with? A. That is like giving the doctor's work to the lawyer, and the lawyer's work and the professor's work and the plumber's work and everybody else's work just to one department, or to one profession. The factory inspector really is covering a particular line of work. It is not structural work, which the Building Department takes care of, and it is not exactly the work of the Fire Department, although they cover that throughout the State, but it is sanitation and safety in the factory, as a growing concern, and you would have to duplicate a lot of machinery and a lot of investigation force to separate it that way.

Q. Well, Commissioner, in one department to-day there are different kinds of inspectors employed, one to look after sanita-

tion and one to look after the structural side, and another to look after fire-escape facilities. That is by a sort of natural selection. One man either becomes expert while he is in the service or he enters the service with some particular knowledge on a given subject? A. Yes.

Q. Why would not that apply to this Bureau of Inspection, having your divisions contain men who are naturally fitted for the different kinds of work? A. That is a question of degree, rather than anything else. You could have all departments concentrated in one, but you would practically destroy the factory inspection service as a whole in this State, as a body for investigating and study and for uniform enforcement of the safety laws, and sanitary laws.

Mr. SHIENTAG: Are there any further questions on this particular subject?

Assemblyman PHILLIPS: If you had a Bureau of Inspection, would it make any saving by doing away with this duplication. Would you not have to subdivide that bureau into departments?

The WITNESS: Just the same.

Assemblyman PHILLIPS: With a specialist for each department?

The WITNESS: Not necessarily in the identical same way, practically the same.

Mr. SHIENTAG: Would not you be saving these visits by the inspectors of the different departments?

The WITNESS: Well, you would have a different set of inspectors from the same department.

Assemblyman PHILLIPS: Would you not have to send inspectors from your different divisions?

The WITNESS: Somewhat in the same way.

By Mr. SHIENTAG:

Q. As to tenement-house inspection, as I understand it, you think that inspection belongs properly to the Tenement House Department? A. I think our departments are organized wrong. I think the Building Department ought to cover simply the erection and installation of the building, and then the Fire Department ought to take care of the fire prevention, and the factory inspectors ought to co-operate with the Fire Department. And I think those departments could co-operate pretty successfully without much trouble.

Q. Have you ever considered the subject of manufacturing in tenement houses, Commissioner? A. Yes.

Q. What are your views as to the restriction of such manufacturing? A. It is restricted now pretty generally. You have to get a license for the house. Is there any proposition to go any further and forbid manufacturing in tenement houses?

Q. What are your views on that subject? A. You mean in the homes?

Q. Yes, in the homes? A. Clothing that is sent out?

Q. Yes. A. I do not know how you are going to do it, and another thing you have got to think of about that is, that there are many thousands of people who are manufacturing in their homes who are not engaged in any sweated trade whatever. A great many people are in artistic lines. A great many people are doing expert sewing and there is a good deal of finishing by first-class finishing men, a better class of sewing than is sent out from the stores. So if you forbid manufacture being sent to the homes from the factories or some shops, you are forbidding a very large class of industry, that is good and should not be prohibited.

Q. What would you say, Commissioner, to giving the Tenement House Department jurisdiction over manufacturing in tenement houses, so as to avoid any duplication of inspections and reserving the powers of the Labor Department to some other field? A. Well, I think it would be a great relief to the State Department of Labor, but the trouble is you have got to regulate that work at both ends. You find out what work is going out from the factory and then you follow that into the tenement house, fol-

low it back and forth. These two branches go together. Do you see what I mean?

Q. But I don't get the importance of following that work? A. You can't find it in the tenement house or otherwise. You can trace all the tenement houses, go all through people's apartments, and find work in there. You go to the factories and you practically interrogate the factory proprietors to find out where their work is and get a list of it.

Q. Why not send this list to the Tenement House Department, and have the inspector go through the house? A. If you do catch him receiving any goods or sending any to a tenement house, why you have got him.

Q. What do you think about the jurisdiction of the Tenement House Department. The tenement house inspector inspects the tenement houses and visits the apartments where the manufacturing is carried on, but has absolutely no jurisdiction? A. If they would report to the factory inspector, it would enable the factory inspector to look after it. The trouble is that the tenement house inspector might go through a house from top to bottom, or the factory inspector might, or you and I might, and you would not find any work in it, although on our first appearance in the door, why everybody in that house is working.

Q. The tenement house inspector would get a list from the factory inspector, produced from the factory? A. That is, he duplicates the work of the factory inspector.

Q. No, he simply visits the tenement houses indicated on that list. A. Where would he go to get the list?

Q. Send to the Department of Labor. A. Then he would have to go to the factory proprietor. In other words, he would have to come to the factory inspector for his list of proprietors.

By Miss DREIER:

Q. We have now a system of subcontracting which means that girls in factories, for instance, don't get the work. They come out and wait, and the work is sent out to them, it is sent to tenement homes to be done there. Wouldn't it be much more advisable to have a man in a factory do that work instead of having it done in homes? Is there any way by which we can remedy

that situation? A. I don't see any way of stopping that except through the unions, if they will try and enforce the rule against subcontracting. The trouble is that practically throughout the world that trouble exists, and you cannot practically go into people's homes at night and day time and cut them off from working there.

Q. Could we have a license, for instance, or a label on a garment which was made, and have it stated on that tag that it was made in the tenement house; mightn't that help? A. That wouldn't do it.

Q. Couldn't that possibly be enforced, could there be a regulation like that? A. I would not like to try to. That would be a very hard thing to enforce. You must remember that the best goods sold on Fifth avenue, for which the highest prices are paid, are finished in houses.

Q. Exactly. That is what we want to avoid. A. Some of that work is very highly paid; good work under good conditions. Those people naturally don't want to be driven out of business, and when you say "tenement made" you may stigmatize the best class of goods in the trade. In other words, all hand-made trimmings are tenement made in New York city, and all the best dresses and all the finest things that are made in New York city are tenement made, so that all you will have left would be a few things of medium grade, made in shops.

Q. At the same time we know that the people who work in tenement houses get very much lower wages than those who work in factories? A. We know that the vast majority in the sweated trades do. We would like to stop it, but there is a very large minority who are not so situated, and who don't receive a vastly lower wage, and if you try to interfere with one, you are trying to interfere with the other equally. You can't distinguish between one class and the other, unless you divide tenements into classes and say all who live in certain tenements can work at home and all who live in other tenements can not.

Q. Is that possible? A. No.

By Assemblyman SMITH:

Q. In relation to the selection of factory inspectors, are you familiar with the method of rating in the Civil Service Commis-

sion for position as factory inspector? A. Am I familiar with the grading?

Q. The method of rating by civil service examiners? A. Oh, yes.

Q. Do you think that we get the best men for the places by civil service examinations? A. I think you can, yes, practically.

Q. Do you know that about forty per cent of the examination is given to the man for his past experience, and there is no way of looking that up, except taking his word for it, as he writes it on paper. In other words, a man with a pretty good head and a good imagination comes third or fourth on pretty nearly every kind of list, who can show experience as a factory inspector; and if necessity demands it he has experience for a cold storage inspector; and if the Public Service Commission needs an inspector the day after, he has the experience for that. He has got them all. A. You mean the State examination?

Q. Yes. A. I saw the method up in Albany, and the method for examination in the Department of Labor I thought was very good. You can go up there and look at the papers a little bit, and you will see they are very carefully worked out and very intelligently. I think you can take in any case the first one, two and three on the list, and they are pretty nearly always apt to be ranked as first, second or third, without any doubt.

Q. We will agree the places are rated well, but did the man who wrote the paper do the work he said he did? There is no investigation made of it? A. What?

Q. The man who takes the examination and puts down about his experience is sure to put down a very good record, but there is no way of finding out whether he ever had it or not? A. You can tell that when you try him.

Q. You don't try him. He goes into a room with five hundred men. He writes it on a piece of paper and the Civil Service Commission passes him and puts him on the top of the list, principally because of his experience? A. You can tell from an examination of the paper itself whether the man has or has not much experience, otherwise he could not answer the paper.

Q. Why, no, no. I hold the opposite to that. I suppose the man can come third or fourth on six or seven different kinds of

lists, requiring technical training — it has happened. Now, this is a fact, there was an examination held for a new position in the State under the State Commissioner of Health, known as Cold Storage Inspector. The Civil Service Commission, for some unknown reason, got the idea that a man who works in a cold storage plant ought to know more about cold storage than any other human being. The result is that the first ten men on the list are naturally friendly to all the cold storage plants in the State. They are friendly to them at the time the examination took place, as they were working for them at that time. And the men who worked for the Commission, who secured three or four prosecutions under the new law, received no rating for experience. Now, in view of that, is it the fact that the very best men available for this work are gotten by Civil Service examinations, where no investigation is made of anybody to see whether or not he states what is so when he talks of his previous experience? A. Of course the appointing officer has a very good chance to investigate and I never saw any such defect as you mention in any of the appointments that came up to me. I always read over their papers carefully and inquired into their references, and got a good many endorsements by all classes of people. I thought it worked very well. Your objection is quite surprising to me.

Q. As a matter of fact, you have to take one of the first three. He may not be the best man for the job, but he just about performs the duties, and that is all. A. Oh, no. A difference of opinion, Mr. Smith.

Q. Under the present system does the State Department of Labor secure the services of inspectors who have experience before they enter the department? A. I would rather have them, yes.

Q. Under the present system, does the State Department of Labor get them? A. Not in the lower positions. They get men generally who have had mechanical experience, who have been employed in factories, or been foremen or men of that class. They are competent, except that they would be very much strengthened if they had men with a little more education.

Q. What would you suggest that would result in securing the services of men with some technical experience? A. Oh, that has

already been provided for by higher positions with increased salaries for supervising inspectors.

Q. You think that will act as an inducement? A. Yes, I think so.

Q. If the Commission will bear with me, we may need just a few minutes more. I would like to ask Mr. Sherman his views on fire prevention and fire-escape facilities. I understand, Commissioner, that you have gone into that question. What can be done to prevent the spread of fire because of inflammable material in a manufacturing establishment. Have you considered that? A. Inflammable material?

Q. Yes. A. I think it ought to be cleaned out regularly, all inflammable material. I think about once a week, and in the meantime it ought to be kept in fire-proof receptacles. By inflammable materials, I mean principally clippings and cuttings of different articles in clothing, in the clothing trade.

Q. Do you believe that fire drills should be made mandatory? A. Well, the principal use of a fire drill, it seems to me, is to show that you can't get out of a factory in case of fire.

Q. Or can get out? A. And I think, for that purpose, the Fire Department ought to go down to every factory or every building and conduct a fire drill. Then you would demonstrate, in a large number of them, that in case of fire they could not possibly get out. That would be the principal use of fire drills, and I think if they had such fire drills occasionally it would keep the subject of safety before the employees, and show them how they ought to get out in case of fire; but I don't think the fire drill itself is of primary importance, except for that.

Q. Isn't that of sufficient importance to warrant the mandatory requirement of fire drills from time to time? A. Oh, yes. I would not say mandatory requirements. I would give jurisdiction or authority to the Fire Department, or somebody like that, to go and conduct fire drills in these establishments. When you say to an employer or anybody else that he should conduct a fire drill, he may not know how, and then in an old building, a loft building, it won't do any good to have a fire drill on one floor, by itself. That would be no good at all, because that won't produce the conditions of fire. The conditions of fire are that

all occupants of the building come down the stairway, elevator, or fire-escape at the same moment, and the fire drill, to be effective, must take in that whole building. You must have some official with authority to come there and hold the fire drill under conditions which he thinks proper and necessary to test the capacity of that building to empty itself, and instruct the people in that building how to get out.

Q. The Commission has received considerable testimony concerning the advisability of requiring the installation of automatic sprinklers. What are your views? A. Automatic sprinklers?

Q. Yes. A. Automatic sprinklers are a pretty expensive thing. They would cost this State, for instance, if they were required in the State, I don't know but hundreds of millions of dollars, and they are useful for two purposes. They are useful, first, to protect property, and, second, to make life a little safer. They are not very useful for improving the safety conditions as far as life is concerned. I don't think that they ought to be required everywhere, under all conditions, but I think that is a subject in which disinterested expert opinion should be consulted. Now, along a subject like this, like the sprinkler system, I am not an expert, and your Commission has Mr. Porter, I think.

Q. Yes. A. And Mr. Porter is a very capable expert in that line, and I think you ought to put him in on that question.

Q. We simply wanted to get your views. The Commission has received testimony of experts, and we will get some further testimony along these lines.

The CHAIRMAN: On the question of automatic sprinklers, my recollection is that we had testimony before the Commission, that within the last three years I think there has not been a single life lost in a building which has an automatic sprinkler, and which had a fire there.

The WITNESS: They stopped that record just after the time when a building burned with automatic sprinklers, and lost a life, and that is the answer to that.

Mr. SHIENTAG: Where is that?

The CHAIRMAN: Where is that?

The WITNESS: I don't know. I tell you my opinion on that point is not very good. It is not very well informed. I don't just see how the automatic sprinkler would put out fire under all conditions in these work shops, where there are work benches and clothing clippings underneath, and matches are thrown down there. The automatic sprinkler won't stop that fire, and I heard the last fire chief of New York and quite a number of others say that the automatic sprinkler was not so very reliable under certain conditions. Those conditions are generally working conditions. The automatic sprinkler is good enough when the room is empty. A great many fires, you see, occur in an empty room, an empty work shop, and the automatic sprinkler is very apt to put out that fire; to protect property and to protect neighboring property, that is, stop the fire at its source, and a great many neighboring buildings are saved. But when it comes to the question of automatic sprinklers in work shops and buckets of water and hand grenades and things like that, I don't know but that the latter are probably as effective as the automatic sprinkler.

Q. Do you believe that manufacturers should be prohibited from manufacturing above a certain number of stories in loft buildings? A. No, I don't think it should be prohibited, but I think that the great fire which we have had brought to our attention lately is due to the fact that large numbers of people are concentrated in lofts high up in the air, and there is absolutely no means by which these lofts can be emptied quickly in case of fire.

I think that the license, as I explained it first, should be required of a factory established in the upper lofts of these buildings, and that the license should specify the number of people who may be employed in the space occupied, and that the number of people upon each floor should be limited according to the exits. The capacity to discharge all the way down, that should be considered. I think Mr. Porter, your expert, could explain that better than I could, but if you have only two stairways, for instance, in a factory building, a loft building, you could only count on the number of people going out of the factory floor down one story, because the next story would empty in and occupy the stairway that far down for the next space.

I don't believe I have made that clear, but what I mean is that you could not consider a stairway as being at the exclusive service of every floor.

The CHAIRMAN: We understand that.

The WITNESS: But you must only take each floor capacity of that stairway. Calculate your capacity to discharge that way.

Of course, there is another thing better than the stairway, and that is the bi-sectional building, that is divided by a fire wall up and down; and another thing, nearly as good as that, is a passageway or bridge or portico running to an adjoining building, which is separated by a fire wall or by an open space. That will empty the floor perfectly without going down a stairway.

Mr. SHIENTAG: There you have legal complications.

The WITNESS: Yes, but they will have to fix that up themselves. I mean, in giving licenses for a factory put in your conditions that to exhaust that floor they must have certain things provided. Let them work it out in any way they wish. Don't say to them you have got to do this, you have got to do that, or you have got to do the other thing, but say you have to provide an exit for five hundred people before you can have a license for five hundred people on the sixth or seventh floor of your building.

By Assemblyman SMITH:

Q. Early in the investigation it was suggested that all windows leading from the building should be flush with the floors. A. What?

Q. That windows leading to other exits should be flush with the floor. What do you think of that? A. That is a very great advantage, especially at those heights, because it is a bad thing to climb out. The vertical outside fire-escape we have now, I think those are generally useless ornaments.

Q. Well, the exits to the building which you suggested, a bridge leading to another building, that should not be a window, but it should be a door flush with the floor? A. That would be much better.

By Mr. SHIENTAG:

Q. What measures would you recommend to prevent smoking in factories, Commissioner? A. I don't know.

The CHAIRMAN: Like the ordinance to prevent spitting on the floor.

The WITNESS: I think the employer would have to take care of that some how or other.

Q. It is quite a serious problem. Would you make it a crime for a factory employee to smoke in a factory, or a certain kind of factory? A. Suppose he were in the furnace room or something like that, why shouldn't he smoke?

Q. Where material is? A. The trouble about those crimes is that none of the courts will punish for them very much. We have the Magistrates' Courts everywhere in the State; practically when you make the rather strict rule, they won't punish for them at all, except after some great disaster like that which happened. Little offenses you can't hold anybody for, particularly in our Magistrates' Courts.

Q. You see, it has been demonstrated rather forcibly that those little offenses produce terrible catastrophes? A. They are terrible, yes; locked doors produce terrible catastrophes, and yet the Magistrates' Courts—I am not speaking about them here, but all over—hold pretty generally that it is a technical offense. And if you can find him guilty of the offense two or three times you can get him punished. You can get them punished just now, because popular excitement is aroused, but generally it is pretty hard to get punishment for these things. The magistrate will warn the employer, or warn a man and scold him, but they will say, we will let you off this time; and that means that you have got to prosecute each man about three times before you can get any punishment.

Q. That leads to this question, what suggestions would you make that would tend to minimize a suspended sentence for violations of the Labor Law? A. I have given up that job.

Q. Do you think the Labor Law ought to be amended so as to prohibit all doors opening inwardly? A. Why, no; you would

have to rebuild your buildings, because the law, as it reads now, "open outwardly, where it is practicable," but there are lots and lots of doors in buildings, the way buildings are built, that if you made them open outwardly they would block up the passageways and be terribly harmful. I think it would be important to give the factory inspector authority to make them use sliding doors, or some kind of automatic doors.

Q. You say it is impracticable to order the doors to open outwardly, yet they say that fifty bodies were found in front of one of those doors. Don't you think it would be advisable to make it mandatory, that is, to prohibit all doors opening inwardly, and providing for sliding doors, if it were impracticable to have the door open outwardly? A. No, suppose you do — take a fair-sized work room, with men at work in it. What harm does it do which way the door opens, if there are two men working in it. You must remember that almost all the buildings in this city have been built with doors opening inwardly. The doors in this building, in this room, open inwardly.

By Miss DREIER:

Q. You spoke of the inability to enforce the limitation of hours for women, because you could not get the evidence. Why could not you get the evidence? A. What?

Q. Why can't you get evidence against the violations of the rules regulating the hours of labor, when the employer employs his people overtime? A. What do you mean?

Q. Can't you get the evidence to convict? A. Oh, well, you could get the evidence if you sent back and watched the hours. That is, if you had a factory inspector who simply sat in the office and watched how long they worked, but otherwise you have to get the employee to testify. Now, the employees don't want to testify.

Q. Why don't they want to testify? A. The only place they will testify is in case of labor trouble or something like that, and then they want to revert back and you are not curing anything in the future, particularly, and you are not stopping over hours.

I don't know how much over time there is, but I know that we tried to stop it in laundries. We tried, and it took about —

well, about half the New York city force for about three or four months, and when we got through things were just about as they were when we started.

Q. Why can't you get the employees to testify? A. The employees to testify?

Q. Yes. A. Oh, they don't want to testify.

Q. Why not? A. Ask them why not. It may prejudice them with their employers, and in some cases, in the most flagrant cases that I have found, they had not wanted to testify because they are getting time and a half for their overtime, and they like it.

Q. It has been said here that it would be wise to limit the hours of labor in certain occupations dangerous to health. Of course, that would be against the Constitution, wouldn't that; wouldn't the judges declare a law like that unconstitutional ordinarily? A. That does what?

Q. To limit the work to special hours of the day where it is detrimental to the health of the workers? A. I don't quite understand you.

The CHAIRMAN: Miss Dreier means whether, in your judgment, a law would be constitutional that limits the hours of the day in certain employments that men can work, where that would be dangerous to their health; for instance, discriminating in different particulars? A. I think that would be constitutional, if the occupation is an unhealthy occupation. That is the miners' case in the Supreme Court. But if it just accidentally happens, owing to local conditions, that the occupation is unhealthy, I think it would be unconstitutional to limit that.

The CHAIRMAN: The Commission will adjourn to meet tomorrow morning at ten o'clock in this chamber.

At 5.19 p. m. adjourned to November 17, at 10 a. m.

**MINUTES OF THE HEARING OF THE NEW YORK
STATE FACTORY INVESTIGATING COMMIS-
SION, HELD IN THE CITY HALL
AT 10 A. M.**

NEW YORK, November 17, 1911.

Present — HON. ROBERT F. WAGNER, *Chairman*,
HON. SENATOR C. M. HAMILTON,
HON. A. E. SMITH, *Assemblyman*,
HON. C. W. PHILLIPS, *Assemblyman*,
MISS MARY E. DREIER,

Commission.

Appearances.

ABRAM I. ELKUS, Esq., *Counsel to the Committee.*

BERNARD L. SHIENTAG, Esq., *Of Counsel.*

WILLIAM L. BEERS, called as a witness and, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Mr. Beers, were you fire marshal of the city? A. Yes, sir.

Q. Were you connected with the Fire Department, and, if so, for how long? A. I was with the Fire Department for twelve years, up to November 15, when I retired.

Q. During all that time were you Fire Marshal? A. Assistant Fire Marshal and Fire Marshal.

Q. What are the duties of Fire Marshal? A. To investigate the cause and origin of fires, to prosecute those persons guilty of incendiarism or arson, and, under the charter, previous to the passing of the Hoey law, he had the investigating into such conditions as would cause or promote a fire, or injure a fireman in the course of his duties, and under certain conditions investigate the conduct of firemen at fires.

Q. Now, I want to ask you a little more in detail just what you did as Fire Marshal when there was a fire reported to the Fire Department; how soon would you investigate the cause or origin of the fire? A. The fires that occurred in the previous twenty-four hours were reported at my office at nine o'clock in the morning; they were brought up to eight o'clock, and those fires were assigned to different Assistant Fire Marshals for investigation and report. Fires reported as being of suspicious origin throughout the twenty-four hours, up to the night previous, were reported by telephone to the Fire Marshal and also to an Assistant Fire Marshal, who was on duty, for the immediate investigation, and the assistant and the Fire Marshal proceeded immediately to the scene of these fires, the Assistant Fire Marshal usually preceding the Fire Marshal and notifying him if it was necessary for him to come; and upon investigation of the premises and the conditions therein, if he was of opinion that the crime of arson had been committed, he would then immediately take up the investigation with a view to having the guilty person arrested and prosecuted.

Q. Will you tell the Commission, Marshal, how many fires there were in the city of New York in the year 1910? A. My best recollection is that there were 9,622 fires, for which alarms of fire had been turned in; but there was an average ——

Q. That covers what boroughs? A. Manhattan, Bronx and Richmond.

And there would be about an average of 250 fires a month upon which insurance claims would be made, and which were extinguished by the occupants of the houses, and for which no alarm is turned in.

Q. You mean to say there were about three thousand more fires, not reported? A. Yes.

Q. And then, in the three Boroughs of Manhattan, Bronx and Richmond there would be an average of about 12,000 fires a year? A. About 1,000 a month.

Q. There would be about 33 a day? A. Yes, sir. I made an arrangement with the New York Board of Fire Underwriters, by which their members, during 1911, would report to me on a special blank those fires. We then took them up and made a

regular file of it on our fire sheet, so that this year we carry the full number, or as many as are reported to us.

Q. What was the total loss occasioned by the 9,622 fires reported through your department? A. As estimated by our inspector, the loss would run about \$6,000,000 a year; but I am inclined to believe that the actual loss paid by insurance companies would exceed that by twenty per cent or more.

Q. That is, you think it would be in the neighborhood of over seven millions? A. Yes; nearer eight millions.

Q. Nearly eight millions paid by the insurance companies in one year? A. That is, the losses paid by the insurance companies, and the estimate of the losses not insured.

Q. Can you tell me how many lives were lost in those fires? A. My best recollection is that in 1910 there were 72 lost.

Q. Seventy-two? A. Yes.

Q. How many in 1911, up to this time? A. That I am not prepared to answer. There were 140-odd in the Asch Building alone. I think the average would hold about the same around 1910 for the others, about six a month.

Q. That is, about 200 and odd lives lost in 1911? A. I think there would be fully that, sir.

Q. That is almost a life a day? A. Very nearly; that is for the working days.

Q. Now, Marshal, from your investigations can you tell me what are the principal causes of those fires? A. Why, carelessness with matches and cigarettes cover the larger percentage.

Q. What percentage or loss by fires occur by carelessness with matches? A. Well, without consulting the report I should imagine there would be about 25 per cent, 20 or 25 per cent.

Q. What other causes are there? A. Why —

Q. I mean outside of incendiarism, which I will come to in a moment. A. Defective flues, careless use of gasoline, overturned stoves, lamps occasionally, tar pots being carelessly used.

Q. In your investigations have you made a special study to ascertain whether or not there is incendiarism? A. That is the larger portion of our work.

Q. About how many cases of incendiarism were there in 1910? A. Why, there were forty-four arrests, and the arrests were a

small proportion of the number which we felt were due to incendiarism. I am inclined to believe that incendiarism and criminal carelessness would be responsible for at least 12 or 15 per cent of the total number of fires which occur in the city.

Q. In other words, do you mean to say that of the 9,000 fires which occurred in the city of New York in 1910, nearly 1,500 of them were deliberately set? A. Yes, I think that they were—if the exact origin of all the fires could be known, that it could be determined, the amount of incendiarism would startle the public of New York.

Q. Why do you say that, Mr. Beers? A. Because lots of fires that are attributed to the careless use of matches may have been due to matches so carelessly used that it was criminal; that the moral hazard was there, that they welcomed the fire, that they did not make the exact preparation of a lot of kerosene oil soaked material, and do it in the darkness of night and in secret, but a match thrown carelessly in manufactured goods which created a fire which the business conditions of the occupant warranted, while he did not exactly go and light the match and put it there.

Q. You mean this, that somebody else lit the match and threw it there, and the fire could very well have been put out, but the owner or manufacturer saw a good chance to have a fire and let it go? A. Well, he preferred to walk out in the street and cry fire than to take a fire bucket and put it out.

Q. How many of those cases do you find? A. I am not prepared to say. I do not know the full figures, but that thought has been in my mind on a large number of fires.

Q. How is it, Mr. Beers, that in such a large number of cases there are so few prosecutions for incendiarism? A. Because the prosecution of an arson case, to my mind, is the hardest one in the world, and I think you will agree with me, Mr. Elkus, it is harder than murder. The evidence is all circumstantial, and one has to be almost sure, in fact we cannot secure a warrant out of the City Magistrate's Court unless we show absolutely beyond any reasonable doubt that the fire was of incendiary character.

Q. So there are many cases where you are morally convinced the man is guilty where you cannot prosecute? A. Very true. In fact, I think the larger proportion of the cases, we only get

a small proportion of the arson cases where we can show that the fire was made. I am not speaking of the cases now that are made by pyromaniacs, in cellars and hallways; I speak of fires which occur in dwelling places and business places of the residents of this city.

Q. What do you mean by a pyromaniac? A. I mean those mental defectives who have a desire to burn, an impulsive desire which they cannot control to start out and burn, and that is prevalent in this city to a great extent — much more than the public knows.

Q. Will you explain that a little further; you say there are certain people — A. There is a very large number of mental defectives in this city who make it their pleasure and business to start out in the evening and make fires in the hallways or cellars of tenement houses, without any real motive for doing it, other than this impulsive insanity, this impulse to burn which they cannot control.

Q. You mean to say they start out — how many fires do they light in a night? A. I have here the work of one man in six weeks. His specialty was of a Friday night.

Q. You mean on Friday night he would start out and leave a trail of fires behind him? A. On five consecutive Friday nights, beginning Friday, September 29, he made 27 fires. I think he is still at large and still working.

Q. Have you not been able to find him? A. I and eleven assistants paraded night after night in this territory, and the best we got was a description.

Q. You say it is the same man, is it? A. We are absolutely certain.

Q. Will you tell the Commission where he started — this Friday was when? A. He made an average of two to four fires a night.

Q. And only went on Friday nights? A. After the third week he made two on a Wednesday night, and week before last he worked Wednesday night, Thursday night and Friday night, and moved his scene of operations about twenty blocks further up Amsterdam avenue, where he had been operating for the first five weeks.

By Miss DREIER:

Q. How is it you cannot catch him, if you know he lights the fires? A. It is like getting one particular bee in a hive. There are six thousand or eight thousand people on a block and the man walks into a cellar and lights a fire and walks out.

Q. How do you know it is the same man? A. Well, by the characteristics. I will give an example. In 1910 a boy by the name of Adolph Goldsmith made a series of fires and I plotted a map, the same as I have with this one, and we found him lighting a fire in 125th Street, and traced back and got the information out of him, and had him sent to Bellevue Hospital for observation, and from there to Central Islip. In January of this year he was released without notification to the city authorities, and last week, a week ago, we caught him again.

Q. Doing the same thing? A. Doing the same thing, and his case was before the Grand Jury yesterday. I asked that a commission be appointed to pass on his sanity and have him committed to Matteawan.

Q. How old was he? A. 25 years of age.

Q. What does he do? A. He is an errand boy.

Q. Yes? A. His method was to take a bottle of kerosene oil, and newspapers or old clothes, and go in a tenement house and place them on the second landing and set fire.

Q. The second landing? A. Yes, the first or second, and generally left the bottle behind him. We called him the bottle man. After getting him the first time, in August, there were fires of that character, and the joke in the office was that I had not secured the bottle man. I wrote down to Central Islip and asked if he was still there and received a reply that he was, notwithstanding that he was out working.

Q. You mean that he was not at Islip when they said he was? A. I wrote to Islip and they made a pencil notation on the letter, "He is still here."

Q. Did you actually find out he was not there? A. He was released on the 10th day of January, this year.

Q. When did you write to Central Islip? A. That I am not prepared to say, because the letter seems to have disappeared, but we were in the office, and there is a distinct recollection of my

getting that reply black, and that pencil notation. It is among the papers somewhere in the office, but we could not find it, but we wanted to bring it here.

Q. How many of those fires by pyromaniacs do you claim there were — do you say there were in 1910? A. I am not prepared to say. It is an unknown quantity. It is represented by X's.

Q. How many of these fires were there, Mr. Beers, out of the total of 9,000 in Manhattan, Bronx and Richmond, in Manhattan? A. 7,966 in Manhattan, 1,273 in the Bronx, 343 in Richmond.

Q. Now, Mr. Beers, speaking of these pyromaniacs again, how many of them are there, do you believe, from your investigations, at large in the city? A. Well, that would be a mere guess on my part. I know that there are many of them, judging by the fires which occur, and assuming the fact that they are pyromaniac fires. Another concrete example was in Park Slope, some years ago, in Brooklyn. A boy of the same age, mental defect, operated over there for three months. The entire Fire Department and Police Department——

Q. What was his name? A. Harry Potter. He had been arrested in New York city, but they had not sufficient evidence, and he moved to Brooklyn, and his average was about three a day. He worked in a grocery store, and when he would deliver an order of goods to a tenant, he would start a fire in or about woodbins or near the elevator shaft.

Q. He made a specialty of woodbins? A. Cellar fires. He was so mentally deficient along those lines that he went home to his sister's house to dinner, and notwithstanding the fact there was a young baby there that day, he went over the roof and down in the next house and made a fire in the adjoining house to where his sister lived. The damage, I recall, was about eight thousand or nine thousand dollars.

Q. What has become of him, has he been sent to Matteawan? A. He was arrested and sent to Elmira, and was released on parole. The last I heard of him he was an orderly in a hospital in New York, New Jersey.

Q. Is he cured? A. Well, there has been a series of incendiary fires over in New York, along about this time. Another case a man named Stephen Ingalls started burning at the age of fifteen in

Gloucester, Massachusetts. A series of fires occurred there, and he was arrested and sent to the reform school, and was later released. On a beach near Gloucester was a row of houses owned by ministers and known as Holy Row. He conceived the idea that those should be burned and burned them down one by one, so they finally caught him. He was never arrested until he burned the District Attorney's house of that section.

Q. Where was this? A. Gloucester, Massachusetts.

Q. Then they thought that was going too far? A. A little too far. He was sentenced to the Charlestown prison for not less than four years or more than ten years. At the end of four years he got religious and they released him with the understanding that he was to leave the State of Massachusetts; so he came to Flushing, Long Island, and at Flushing, Long Island, was an occupant of Hope Hall, Mrs. Booth's home for convicts. When they moved away he was left behind. A lumber yard was burned there. He was found around the place. We did not have evidence to arrest him, but a little later a stable was burned, and that same night the Bayside Yacht Club was burned, and he was seen running away from the scene of the fire. I caused his arrest. After questioning him for a couple of days at length he swore positively that the only time he had ever been arrested was for breaking and entering in Massachusetts, so I wrote to the authorities down there and got his record and learned he had been arrested and sentenced twice for arson. So I made the trip to Gloucester and got the full particulars and came back and showed him his record, and everything. He then confessed and he is now in Sing Sing serving thirty years' sentence. That was his third sentence for arson, so I don't think they are ever cured.

Q. Going on to the cases of criminal incendiarism, what have you done with reference to those — how many cases have there been, and what do you suggest as a means of preventing incendiarism or punishing it more severely, so that it will be prevented? I understand you have some charts and things you want to show us. A. In the line of the number of incendiary fires in this city, I have prepared a map here of tenement houses.

Q. How about manufactories? A. Well, we will take that later.

Q. All right. A. This map covers about fifteen square blocks, of five and six-story tenement houses, and runs from 98th street to 103rd street, Lexington avenue to the river.

Q. 98th street to 103rd street, Lexington avenue to the river?
A. Yes.

Q. In those houses is manufacturing carried on in most of them? A. Not that I know of. They are mostly residential, small apartments, twenty families to a house. Insurance is written up there very freely by some of the companies, and the number of fires occurring in 1910 in that area was 272, and in 1911 in the first nine months, 177. I think I am safe in saying that only one or two or three of those fires possibly might have been without insurance, and the losses would run from \$75 to \$750. There had been as high as four fires in one house. You can see by the map how close they are. That original map was prepared for a budget exhibit, but notwithstanding the fact that it was there on exhibition for thirty days, the companies still continue to write that class of business.

Q. That is an area of fifteen city blocks; you had how many fires? A. Two hundred and seventy-two in 1910 and 177 in the first month of 1911.

Q. In your opinion how many of those were of incendiary origin? A. Well, based on the fact that a number of those people who had these fires were related to each other, I am constrained to believe that a very large percentage of them were.

Q. You mean to say that although they lived in different houses there was a coincidence, that they were related? A. We would get a brother and a sister, and two brothers, and father and son, all living at different houses.

Q. They all had the habit? A. That is it, exactly.

Q. You say you have something about factory buildings and fires there? A. A large percentage of these fires by pyromaniacs, and of those who have fires for gain, could be prevented if the owners of these buildings were compelled to install an automatic signalling device, so that the fires would be promptly reported to the fire houses.

Q. How about the questions of over-insurance; is not that the root of most of these fires? A. I am inclined to believe that the

careless underwriting and careless housekeeping are the two causes which go to make up the large number of fires.

Q. A man may insure his property, his house or merchandise at any value he may place upon it? A. Yes; because the policy usually permits of other insurance and a man can go and get a policy in several companies without that fact being known to any of the others.

Q. Did you visit the Triangle Waist Company Building immediately after the fire? A. Yes, sir.

Q. Did you make an investigation? A. I was there all during the evening of the fire, and was there on the ground the next morning at nine o'clock.

Q. Tell us what you observed. A. The result of my investigation and the taking of testimony for ten days after the fire was that I was of the opinion that the fire occurred on the eighth floor on the Greene street side, under a cutting table, which table was enclosed, and that contained the waste material as cut from this lawn that was used to make up the waists. They were in the habit of cutting about 160 to 180 thicknesses of lawn at one time; that formed quite a lot of waste, which was placed under the cutting tables, as it had a commercial value of about seven cents a pound.

Q. Was it boxed, or just placed on the floor? A. Well, the boards that were nailed on the legs of the table formed the box or receptacle.

Q. The outside of that receptacle was wood? A. Yes; it was all wood.

Q. How did the fire start there in that stuff? A. Well, we formed the opinion that it started from the careless use of a match from one of the cutters. They were about to leave to go home, and in those factories they are very anxious to get a smoke just as quick as they get through work.

Q. A man simply lighted a match? A. Yes; and carelessly threw it under there; then the attention of the occupants was called to it, and they tried to extinguish it before they rang in a fire alarm.

Q. Did you examine the fire-escapes of that building? A. After the fire.

Q. What did you find? A. I found the fire-escape on the rear of the building, which was the only one, and was entirely inadequate for the number of people employed in that building.

Q. Why were they inadequate? A. Too small and too light, and the iron shutters on the outside of the building when opened would have obstructed the egress of the people passing between the stairway and the platform.

Q. How many people were there on the eighth floor? A. Something over 250, as I recall it.

Q. How many sewing machines? A. There was a cutting department, and it was partially used for machines for making fine waists. About 220 persons were on the eighth floor, all of whom escaped.

Q. How did they come to escape? A. They went down the stairway and down the fire-escape, some of them.

Q. How about the ninth floor? A. The loss of life was greatest on the ninth floor. There were about 310 people there.

Q. How many sewing machines? A. Two hundred and eighty-eight.

Q. Now, will you tell the Commission whether or not the place was overcrowded with the machines? A. Yes, sir. All the space that could be utilized there was utilized.

Q. Were any attempts made in that case to extinguish the fire? A. Yes, there were. They used fire pails there, and then attempted to use the fire hose.

Q. What happened to the fire hose? A. Well, they claimed they could not get any water to it.

Q. How about the fire pail, why did not that put out the fire? They did not get enough water to put it out. It spread very rapidly. The material is very inflammable, and it travels very fast, and the conditions were there, everything, to build a fire.

Q. How many fires would you say, Marshal, could have been prevented if ordinary precautions were used?? A. You mean in the factories?

Q. Yes. A. I am not prepared to say, Mr. Elkus. I am of the opinion that the precautions that are used to safeguard these premises in the form of installation of fire-extinguishing apparatus would have a tendency to keep the fires down to a small size. All fires are

of the same size at the start, and I think the loss and damage would be a great deal less by having available apparatus.

Q. In other words, while a number of these fires might start, if there were proper appliances, they would be prevented from amounting to anything but a very small fire? A. Yes; especially lives would be safeguarded.

Q. Lives would be saved, and money would be saved? A. Yes, sir.

Q. What recommendations have you to make for legislation to the Commission with reference to the prevention of fires and the saving of lives, and also with reference to the spread of fires?

A. Out of the city and in the city?

Q. Both. A. I think that all manufacturing establishments should have an interior automatic signalling device to call attention to fires when they occur, and they should also have an automatic extinguishing device in the form of sprinklers and of standpipes. Local fire drills should be compulsory and all the exits in factories should be marked, as in theatres, and the factory employees should be drilled the same as the crew of a ship is drilled. The fire stations should be known, and the specific duties of each employee should be known in case of fire. That is, some of the men should be directed to get the female employees out of the building, and the others should be directed to get the male employees together for the purpose of fighting the fire and holding it in check until such time as assistance came. I think that here in the city, all these loft buildings that are used for manufacturing purposes, the equipment should be standardized and should be as nearly fireproof as possible, and no tenant should be permitted to occupy a building of that kind without first filing a plan showing the way in which the manufacturing apparatus is to be installed, and that should be as near fireproof as possible; and he should not be permitted to fill up his building with a lot of combustible material without proper supervision. The number of persons employed in a given area should be specified and approved and the plan of the building, with the exits all marked, should be posted on the walls of the building, so that it would be there and the employees could become familiar with it, and know just where they are to go in case of fire. Smoking should be absolutely prohibited in such industries as shirt-waist making and light

lawn dresses, or where any of those light inflammables are used, chiffons and veilings, straw goods, hat factories, or in any factory using a large quantity of material that is inflammable. I think, also, it would be wise to have lectures in the public schools, under the auspices of the Board of Education, instructing these employes what to do in case of fire, especially in schools located in these districts where the factory employees reside.

By Miss DREIER:

Q. I want to know about the automatic fire alarms. For instance, would it be wise to have them in tenements? A. The law distinctly provides that every tenement house should have an automatic fire alarm.

Q. But they are not there? A. They are not there for the reason that it is low cost business and the automatic fire alarm companies do not care to install them at the rate of about ten per cent of what they can get in a business place. It is unprofitable business. I think their franchises require them to put them in, but they do not do it.

Q. Is not the business of the Tenement House Department to see that that is done? A. No; I think that the Fire Commissioner can approve of these automatic devices, but I think it is the duty of every property owner to protect his tenants. If a signalling device was installed in the cellars of tenement houses, the pyromaniacs would be unable to get far enough away from the building before the alarm of fire was raised, and more of them would be caught.

By Mr. ELKUS:

Q. Is it mandatory by law that there shall be a fire alarm in those buildings? A. I am under the impression that it is, but section 762 of the charter specially states just what is the law, and I think you are the better judge, Mr. Elkus, than I am.

Q. That, of course, is not superseded by the Hoey bill? A. That I do not know.

Q. Was there any attempt made by your department to enforce the requirement that there shall be automatic fire alarms in those buildings? A. In tenement houses? I think not. In theatres and public halls and lodging houses, I think there was; but in the tenement houses I believe not.

Q. You say the company does not want to put them in? A. Well, I was informed that the cost that they could charge is nominal, about thirty dollars a year, twenty-five or thirty dollars a year. That is very low cost business and not profitable, but if the companies who enjoy these franchises were compelled — they should be compelled to install these systems in tenement houses.

Q. What companies are there? A. There are seventeen or eighteen now, I believe.

Q. What do they charge? A. I do not know.

By Miss DREIER:

Q. I want to know about the automatic fire alarms in factories. How does it work? Does it have to be pretty hot before it goes off? A. It has resulted in a large number of false alarms, and sometimes they do not go off; but there is no reason why they should not install proper automatic alarms. I would like to make this suggestion. I think outside of the city of New York the legislation should be such that the State factory inspection service should be worked in conjunction with the State Fire Marshal's office, and render to him such assistance as they can, and that their reports should be available for the State Fire Marshal's use.

THOMAS C. AHEARN, called as a witness and being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. You are the Fire Marshal of the State of New York and have been such for the past year or more? A. Three months.

Q. You have had submitted to you certain questions for your recommendation? A. Yes.

Q. And you have prepared, as I understand it, a report? A. Yes, sir.

Q. Will you present that? A. Yes.

Mr. ELKUS: With the permission of the Chair, we will make this part of the record.

(A copy of this report is fully set forth in Appendix IX in Volume I of the Commission's Report.)

WILLIS O. ROBB, a witness recalled for further examination, testified as follows:

Examination by Mr. ELKUS:

Q. Mr. Robb, the other day, when we interrupted your examination, I think you were at the point of telling us your experience and opinion with reference to manufacturing in buildings of a certain number of stories, and as to whether or not that was safe or unsafe. Will you tell us your opinion with reference to that? A. I think I expressed the opinion that certainly above the fifth floor of a modern building, manufacturing should be allowed only if the building is throughout equipped with approved automatic sprinklers, and with satisfactory exits, and other precautionary features of construction and protection.

Q. Do you think that manufacturing ought to be restricted in high buildings, no matter whether they are fireproof and have sprinkler systems? A. They should be restricted, undoubtedly, according to the construction of the building, with reference to fire exits, and as to its possible use as a building. That is not an underwriting question, however, and as, on certain other points, I do not pose as an expert on that. I am not even an expert on fire engineering.

Q. Well, why is that not an underwriting problem? You tell us it deals with the safety of life, and has it nothing to do with the safety of property? A. It has only a subordinate relation to questions that a fire insurance company is directly interested in.

Q. Are you in favor of an automatic sprinkler system being required in all buildings over a certain height, and, if so, over what height? A. Yes, I think no manufacturing building, even though fireproof, more than five stories in height, ought to be left unprotected by a high grade automatic sprinkler protection.

Q. Have you any knowledge as to why certain sprinkler heads are approved, and only those? A. Why, not any very direct knowledge. Of course, the approval of sprinkler heads and of sprinkler valves is made on test and examination, a somewhat protracted test, by the Underwriters' Laboratory in Chicago on behalf of practically all underwriters. That does not apply to the piping or to the installation of equipment.

Q. That only applies to the sprinkler heads? A. And to the valves.

Q. So much is charged for each sprinkler head, and the installation is part of that? A. Well, it works out that way. Of course, a contract may be made for a lump sum.

Q. I mean that is the basis on which it is figured? A. Well, that is one of the bases. Of course, the total value is the sprinkler equipment, which is represented by approved devices, valves and sprinkler heads. That is not larger, possibly, than twenty or twenty-five per cent of the payment. Then there is the plumbing and other work, the piping, ordinary installation work.

Q. In other words, twenty-five per cent of the cost is the sprinkler head and the valve? A. Perhaps so. That would cover it, sir.

Q. And then the balance is simply plumbing work? A. Plus, of course, the pumps and apparatus that are connected with the sprinkler appliances.

Q. Of course, you recognize that a sprinkler system ought to be made as cheaply as possible consistent with efficiency? A. Yes.

Q. What have you to say with reference to means of preventing overcrowding in lofts or factory buildings? A. Of course, there are statutes now governing that point.

Q. Simply as to the air space? A. Yes, determining the number that may be employed.

Q. Each employee must have a certain number of cubic feet of air? A. Yes.

Q. Is there anything else you would suggest about overcrowding; any modifications or changes of the present law? A. I think the question of overcrowding in factory buildings is involved in the other question of the subdivision of the buildings, and their proper construction and arrangement as to exits. I think the hazard, from the point of view of danger to life, not merely to health, of overcrowding, is a question of exits.

Q. Of what? A. Of exits.

Q. Do you mean to say, Mr. Robb, that if the exits are sufficient, and are of the proper kind, overcrowding is not dangerous? A. Exits, plus a finished drill system, ought to reduce the panic hazard to the vanishing point.

Q. What do you say with reference to exits; what recommendations do you make? A. I am not myself an expert upon those ques-

tions. The best opinion leans to the view that in high buildings it is not possible to furnish by ordinary stairways or elevators or fire towers, facilities for the prompt exit of the entire number of employees, and that probably the question must be met by a subdivision of the building by fire walls, through which the employees can go and have the doors closed behind them from the threatened to the safe section, and thence make their way out at leisure and without panic. It is probable that exits cannot physically be made, doors enough and ample enough, to take out all the employees of a large area high building, of however good construction, which has not been subdivided, which is an open space of an entire floor, filled with workmen to the extent necessary for the profitable operation of a manufacturing business in such premises. I give that as not my own independent judgment, but as the apparent growing sentiment of those who have inquired into such matters on its technical side.

Q. Are you able to say, Mr. Robb, from your experience, the effect upon the morals, habits and sanitary condition of the workmen of this overcrowding in loft buildings in this city? A. Why, to an extent, as an inspector for insurance purposes during many years, and in connection with the adjustment of losses and making rates, I have been brought in contact somewhat with factory conditions here and elsewhere in the country. There can be no question that overcrowding in manufacturing places, aside from its risk of death by accident, involves a very serious question of danger to health and to morals. The crowding together of people is always immoral, especially of people of both sexes. The habits are likely to be bad. It is more difficult to prevent the smoking of cigarettes, for example, in a crowded than in a less crowded factory. And, of course, the greater the crowding the more serious are the dangers to the health and the morals from overcrowding, and the greater is the need of public protection.

Q. A fire frequently starts and spreads because of inflammable material used in manufacture. That has been stated here by witnesses. What have you to suggest to prevent that? A. The reduction of the area of any open space by the division of the building by fire walls, and the installation of automatic sprinkler protection.

Q. How about providing receptacles into which the waste should be put, causing the floor to be clean? A. My answer went into the question, not of the prevention of the start of such a fire, but the prevention of its spread after it has started. The other question is, of course, equally important. The supervision of the factory should be very rigid, not only as to the metal self-closing cans and other receptacles, but as to the ban put upon smoking, and as to the accumulation of waste or clippings from the process of manufacture. In many other ways unusual precautions are absolutely necessary, for example, in the garment-working risks, where the accumulation of material is swift and very inflammable.

Q. The inspection of factories by some proper department, looking for these evils, would, of course, prevent that. How often do you believe a factory should be inspected? A. I do not think an answer can be given to that question that would meet all cases at all.

Q. Answer it in your own way, Mr. Robb. You have the sort in mind? A. Our own method of inspection is necessarily somewhat different from the method of the city department. We may make a full inspection of a building, with all its floors, and all the plants, as to the hazard conditions, all the conditions on all the floors in a given building once in a year or two only. Then we may make other inspections for single unsafe conditions, which have been previously reported, and which are now reported to have been corrected. Our first inspection may have shown lack of fire pails or waste cans, or similar features, and we are advised that they have been corrected, and we inspect for that correction only. And so, when a new tenant goes on a floor, on an upper floor, our inspection may be limited to that new feature. Our full inspections are few in number as compared with our partial inspection, or our reinspection, or our occupancy inspection.

Q. The underwriters can keep track of the removals of manufactures and of their establishment by the fact of, in one case, of the transfer of the insurance, and, in the other case, by writing new insurance? A. Pretty closely, sir.

Q. You are able to tell when a new manufacturing business begins, or when it moves, by your records, without any trouble? A. Except in rare cases, where they do not carry any insurance, and no application is made for inspection.

Q. Where they do not carry any insurance, that practically means that they cannot get it if they want it? A. Not necessarily.

Q. With a very few exceptions? A. That is the general rule.

Q. And in what way do you keep your record? Do you have the city mapped out, and is each building referred to on the map, with the name of the tenant and the kind of business carried on, and the amount of insurance? A. The fire map of the city, which is divided into pages and columns, indicates the construction of the building, as to brick, frame, iron, stone, the exposures and the openings in the side walls, the character of the roof, the streets and the kind of fire mains laid therein, and sometimes, not always, the general character of the occupancy of the building. No names ordinarily appear there except in the cases of large manufacturing concerns, occupied by one firm. But our inspections are made and filed in folders or survey books, which refer separately to each building. A risk to the New York Fire Insurance Exchange means a building bounded by four walls, and all the tenants therein, and sometimes it means even more than that, if there are two or three adjoining buildings that so communicate with each other as to be one risk, it will so appear on our surveys as not one, but as two or three risks. There are presumably 350,000 buildings here in the area of Greater New York, but some large proportion of those are dwellings, apartment houses, buildings of the store and dwelling class, and other risks which are not specifically rated, but which are insured and handled by the hand book minimum rate. Only about 50,000, say one-seventh, of the whole number of buildings, are habitually surveyed and inspected and filed as risks in our records. That includes all of the important risks, however. There are all the manufacturing buildings and public buildings, and the large apartment houses even, all the large mercantile establishments, but they do not in number amount to more than about one-sixth or about one-seventh of the entire number of buildings in the city.

Q. How many inspectors do you employ to make these inspections? A. I do not know exactly, twenty odd, perhaps.

Q. Twenty odd? A. Yes.

Q. And with twenty odd inspectors you are able to make those inspections that are satisfactory to you, as to the risks that you write? A. With our force of inspectors we are able to inspect fully

every new risk applied for, to be rated, and to make the reinspection for changed conditions. We are not able, as frequently as we would like to, to reinspect fully risks which have not been inspected for several years, for our own protection, perhaps, and that of the property owner.

Q. What do you pay your inspectors? A. Grading up to \$1,500, \$1,600 or \$1,800.

Q. Beginning at what sum? A. About \$900 a year.

Q. Nine hundred dollars to fifteen or sixteen hundred dollars? A. Yes.

Q. Now, with reference to fire-escape facilities on manufacturing buildings. What, if anything, can be done to improve them? A. Well, sir, I think we must rely less and less on the external fire-escape, perhaps not so very much on the so-called fire tower, except as that is made to take the place of the regular stair and elevator, as the habitual means of exit, and subdivision of the building. The perfection of the stair and elevator shaft, with its cut-off from the rest of the building, is, I think, the proper direction in which to look for improved fire-escape conditions. I think very little of the fire-escape on the manufacturing buildings, high buildings.

Q. You think very little of it? A. Yes.

Q. You think it is useless, practically? A. Practically useless.

Q. And might just as well be discarded and used for other purposes? A. I presume so. I presume that is true. Occasionally they are useful in a reverse way, because it enables the Fire Department to carry a stream of water up to the windows, but as fire-escapes they are not often useful.

Q. Now, that leads to another question. In many of the buildings you find wooden stairways, and also you will find staircases running around the elevator shaft. That is very common in some buildings, and it is not guarded in any way. I mean is not cut off by any fire wall; there is no fire protection. What have you to say with reference to those conditions? Should they be changed or not, and if so, by whom? A. On the building already erected?

Q. Yes. A. I think the important thing is the absolute cutting off of the shaft itself, which contains both the stair and elevator construction, from the main building. The construction of that shaft, and the character of the fire doors, through which it admits to the floors of the building, is more important than the construction

of the stairway, and the elevators themselves. Of course, we are not in favor of wooden stairways in however good a fire-proof shaft.

Q. What have you to say with reference to their being removed, as to who should remove them; do you think that ought to be made mandatory? A. I do not want to express an opinion on that, sir. It is outside of my special study.

Q. Can you say whether or not those conditions are dangerous, a wooden staircase and an elevator shaft which is not protected from the staircase, the staircase winding around the elevator shaft? A. It is a dangerous condition, the danger depending on the extent to which the entire shaft is protected at its openings on all floors. I would not much care if it was an absolutely fire-proof shaft carrying a stair and an elevator.

Q. Providing the shaft was fireproof? A. Yes.

Q. And if it was not fireproof? A. Then, of course, every departure from sound construction of the stairway or elevator enclosure is very much more hazardous.

Q. Then do I understand you to recommend that all shafts containing stairways or elevators, or both, should be made absolutely fireproof, and the exits should be made fireproof? A. An arrangement of that type, I think, is the modern idea.

Q. Would you recommend legislation to that effect? A. I would not want to go into the question of the requirement as to the correction of existing construction. That is a question of property rights and complicated considerations that I do not want to pass upon. But as to the future, that is a desirable change.

Q. And if it is so very dangerous, should you not think that something might be done about it as to existing buildings? A. Probably something should, sir. It is probable that the fireproofing of shafts can fairly be required by law, even in existing buildings.

Q. You say that it can be done now? A. I say it probably should be.

Q. Have you any theory as to who should pay for it on the existing buildings? A. No, sir; I have not. Like other forms of protection, it is sometimes necessary to charge it to one party's interest, sometimes another. Sometimes the cost of automatic sprinkler equipment is divided between the owner and the tenant, and sometimes it is borne entirely by the owner. It depends on the length of the lease and other conditions.

Assemblyman SMITH: What would the insurance companies do about it, Mr. Robb, reduce their rate?

The WITNESS: We take full account of those conditions in our present rating, and would continue to do so. You understand, of course, there are many improved constructions that our reduction in rate would pay for, and other forms that our allowance would justify the expense for, but sometimes it takes a good deal of money to change an existing construction in order to obtain a slight improvement in conditions. You understand, of course, that they could not always expect to pay for the improvements by saving on account of the reduction of the rate. That would depend on conditions. We can come more nearly to doing it in cases of new construction. It is true that the owner of the modern fireproof building can, by foreseeing our rating methods and applying his knowledge thereof, get back in reduction of the cost of fire insurance practically everything beyond the cost of ordinary construction, but that is not necessarily true of a building that is very extensively changed.

Miss DREIER: If fire walls were put in a building now in existence, would that lessen the rate of insurance?

The WITNESS: Yes, almost always, in our ratings there is an area charge, which would be reduced, or would disappear by the subdivision of the building with the proper protection at the openings, and fire walls.

By Mr. ELKUS:

Q. What have you to say with reference to elevators as a means of escape? A. They are handy sometimes, but they cannot be relied upon.

Q. They should not be relied upon? A. They should not be relied upon. They do sometimes furnish a very satisfactory solution of a particular trouble, but they cannot be relied on.

Q. From your experience, can you say whether or not the present freight elevator service, that is, where freight elevators are used to carry the workmen, is sufficient in these loft buildings here in the city? A. I am not able to answer that question.

Q. You heard the testimony of the Fire Marshal this morning with reference to incendiarism? A. Yes.

Q. What have you to say about that; you are familiar with that subject? A. Well, to what point of the witness' testimony shall I address my answer?

Q. We will begin in the first place, with his figures; incendiarism exists to a considerable extent? A. Most of the incendiary fires are small fires, and the insurance loss and the property loss is correspondingly small. The number of fires due to incendiarism is probably, as I think the Marshal figures, pretty large. In many cases it can only be suspected and not proven, but the actual volume of loss to insurance companies and to property owners where it is clearly and probably due to incendiarism is very much less than most people think instead of being very much greater. It is rather unusual when incendiarism is back of a great fire. Of course, there are many cases where we can form no definite opinion as to how the fire originated, but my own impression is that the looting of insurance companies in this country from fraud or incendiarism is quite below five per cent.

Q. Do you favor a limit being placed on the amount of insurance a man may have written on either his property or his merchandise? A. You mean by law?

Q. Yes. A. I cannot quite work that out. Merchandise varies immensely. It is a characteristic feature of many kinds of merchandise in New York that there will be two seasons in the year, and at the midway point, between seasons, twice a year, the stock may be almost nil, almost amount to nothing, whereas, at the busy season values will be very great. The insurance must be adjusted accordingly.

Q. Let us take this question: At the present there is over-insurance, is there not? A. Some over insurance.

Q. Some men habitually have either their real property or their buildings, or their merchandise over-insured? A. Yes.

Q. What do you suggest can be done to prevent that? A. There are two kinds of over-insurance, especially in New York City. One has, and the other has not, a moral hazard connected with it. In volume the largest over-insurance in New York City is on buildings, because of the requirements of the mortgagee

that a fire insurance policy shall be deposited with him as additional collateral or security. Now, the value of land in New York City is so high that his mortgage really represents more ground value than building value, and he ignores that, and demands that his insurance policy represent practically the whole amount of his loan. In many cases that is true, with the result that those buildings are over-insured for his protection, and the owner is obliged to pay more money than he should be required to pay. For the most part that is not accompanied with a moral hazard. It is not economical, but it does not produce fires.

Q. Can you suggest any method by which that can be avoided? I happen to know that is true, myself. I have had some experience in it. A. I am glad to have a confirmation of my judgment in the matter. It only takes a little more common sense on the part of the mortgagee. It is quite absurd that the mortgagee should require what he calls a quick asset, above the value of the building.

Q. Has there been any way of the owner and the Insurance Exchange agreeing on the value of a building, in case of fire, in case of total destruction? A. There can be. It is not, however, generally advisable. It is almost never wise, notwithstanding the common view to the contrary, to have the value on any kind of insurable property agreed upon in advance. It increases the moral hazard and changed conditions will cause a depreciation of that value, and the physical conditions may not change at all. There may be a change in the neighborhood, changes in conditions of trade, and the result is that when the depreciation brings it below the amount of insurance carried, that there is a standing inducement to the owner or the tenant, as the case may be, to sell for a higher price to an insurance company than he can get from any other source, the property insured. That is a moral hazard which ought never to be developed. At present the practice of the Exchange is to allow appraisals for the purpose of determining how much insurance should be carried, to apply the coinsurance clause only on buildings in the hands of trustees and executors and representatives of minors, incompetent persons, on the theory that they may be under a bond, or under such obligations in case of a fire that they need additional protection. That is not done for other owners.

Q. How about over-insurance on merchandise? A. On merchandise, that is really unpreventable, because of the shifting values

which are found. A man may let his stock run down for only a week at a time to the absolute minimum, and then he will increase it greatly in a little while. He does not take the trouble to readjust his insurance, to cancel his insurance. He cannot afford to do it. He carries at the time a larger fire insurance than the value of the stock, and I do not think that can, under the conditions of trade, be avoided altogether. Of course, if insurance is habitually carried beyond the value of the stock, there is a very serious moral hazard. There is a moral hazard all the time.

Assemblyman PHILLIPS: What do you think of the rule in some places that in case of a total destruction of the building, the company is compelled to pay the full amount of the policy, regardless of the loss?

The WITNESS: The valued policy law is undesirable everywhere, whether on a building or personal property or anything else.

Assemblyman PHILLIPS: It exists in some States?

The WITNESS: Yes, but two of the twenty-one States that have such laws have ever been able to say a good word for the result of the law. One is New Hampshire, which is a small State, in rural communities, where the moral hazard can scarcely develop without being known.

Assemblyman PHILLIPS: Taking it the other way round. How would it be if it was provided by law that a man on whose premises a fire started could not recover more than 75 per cent of his loss under the policy, thereby making him stand a little of the loss?

The WITNESS: There are places where the company puts on what is called the three-quarters loss clause in policies, in places where there is no fire protection. Where the losses are likely to be total losses, and the danger of over-insurance is great, and the moral hazard, as in country store risks, they limit the liability to three-quarters. But there are kinds of business that require full insurance. Take a grain warehouseman who has outstanding warehouse

receipts, and his obligations are such that he must have full insurance. Many merchants in this city would not be given anything like their present credit if they were not so insured as to be able to collect the whole value of their stock.

Assemblyman PHILLIPS: Suppose a fellow tried to increase his loss afterwards?

The WITNESS: It is worse than that. Many of them who have no intention of having a fire for the purpose of collecting insurance, have for years carried on their books false inventories, and the corresponding entries for the purpose of securing additional credit from the wholesale houses, and a better rating from their mercantile agencies, and their books on their face are perfectly smooth and regular. There exists, then, more or less of a temptation to the merchant to avail himself of that. Even if the fire is accidental, the existence of that evidence contributes as much to fraud against insurance companies as incendiarism itself does.

By Mr. ELKUS:

Q. You mean the case of a man who has an honest fire, and then proceeds to cook up his loss? A. In this case he can scarcely help cooking up his loss. His course of fraud was begun when he began the system of making the false entries.

Q. When he made false statements to obtain credit? A. Yes, and he must maintain them.

Q. Are you familiar with the Hoey law? A. I have read the law once or twice.

Q. Have you studied the question as to what department of the city or State should have jurisdiction over factory buildings, factories, with reference to the prevention of fires, to the extinguishing of fires, and the prevention of loss by safety appliances and the installation of sprinkler systems and such things? A. My feeling is that as to the structural features there should be no such authority in the Fire Department,—that probably the Hoey law is defective in extending the jurisdiction of the Fire Department over fire exits, for example, to their constructional features. That it is inadequate. As to the actual construction work, an architect or an owner should not

have to consult with two city departments. But, as to fire prevention and fire protection, on the question of equipment, that should belong to the Fire Department or the proper bureau of the Fire Department.

Q. Now, take the question of fire peril. Should we have any specific law on that subject, any specific standard, or should it be left to the discretion of some authority as to what constitutes a fire peril which required remedy? A. You refer now to the provision of the law which constitutes a nuisance of dangerous fire conditions?

Q. Yes. A. I think the main feature should be covered by statute, but that there must be additional discretionary power in the proper department, the Fire Department, to declare as nuisances things that are not specifically mentioned in the statute. There are conditions which could not be taken account of in any statute.

Q. Mr. Robb, is there anything further you would like to tell the Commission with reference to the matters under investigation? A. No, I think not, Mr. Elkus.

Q. Have you any recommendations or suggestions that you would like to make? A. No, I think not; I prefer not to go into general questions.

Mr. ELKUS: Any questions of Mr. Robb?

The CHAIRMAN: Before we finish, I would ask if Counsel has inquired as to Mr. Robb's opinion on the registration of factories, the licensing of factories.

By Mr. ELKUS:

Q. What is your opinion, Mr. Robb, as to whether or not factories and manufacturing establishments should be registered with some department of the State or city, and also whether or not, before a manufacturer should start in business, he should be licensed, the license to be properly renewed once a year? Do you think that practicable? A. I have not considered either of those propositions, except so far as concerns the requirement that before a manufacturing business is allowed to be installed in a given building, the arrangement of the premises, their equipment, and the lay-out of the premises, and their relation to the exits, and all that, should be

subjected to official supervision. That might call for primary registration.

Q. How could you do that without some method of locating the factories? A. Probably it could not be done. I presume that when the building permit was first applied for, the probable occupancy of the building, for what manufacturing purpose, ought to be indicated, and then that the manufacturing could not in fact be begun without proper supervision of its conditions.

Q. Do you think that would be any hardship on the manufacturer to require him to register or get a license? A. I do not know, nor do I know how much of a burden that would be on the city department. I compute that there are, of what we call risks, 15,000 in New York City, in which there is a considerable measure of manufacturing done. Of course, many of them have eight or ten different factories in the sense in which the public authorities would use that term. That is, that means a manufacturing tenant. I do not know how many different manufacturing concerns there are, but I should think it might approach 55,000.

Q. There are about 40,000 in the State, according to the census statistics furnished us, about 40,000 manufacturing establishments in New York State. A. Of course, much depends on where the line is drawn, as to what constitutes manufacturing.

Q. We do not know how many buildings, in some cases there are ten or twelve to a building, sometimes twenty? A. We have about 15,000 such buildings in New York City.

Q. Fifteen thousand buildings? A. Yes, sir.

Q. In New York City there are between twenty-nine and thirty thousand manufacturing establishments, according to our record? A. That would allow for only two to the building. I think, under our system, we would have more separate establishments than twenty-nine or thirty thousand. We may have a broader classification. I think the average is higher than two to the building.

Q. You point out just what the trouble is. The Labor Department has not the same records that you have. We are not able to get them, because we have no means of tracing them. It is quite apparent that there are many more manufacturing establishments than the Labor Department has cognizance of, which your Insurance Exchange has? A. Well, of course, they can have anything that we have in that way.

Q. We will be glad to have you do that. A. Surely, I have already tendered them to one member of the Commission. Anything we can furnish towards assisting you in making a report, we will be very glad to furnish. Unfortunately, our records do not have, perhaps, just the kind of facts you want. They are made for our own purposes, for the conduct of our business. So that they may not cover in their outline the field covered by this Committee, but, aside from that, the defects of that kind, in classification and arrangement; any information in our possession, if you call upon us, we will be very glad to furnish, or allow your experts access to the record, to furnish themselves with such information.

Mr. ELKUS: We are very much obliged to you.

Mr. ELKUS: Mr. Fitch.

Mr. Fitch takes the stand.

Mr. ELKUS: Mr. Chairman, before we take up Mr. Fitch's examination, I want to call attention of the Commission to two letters. I subpoenaed a number of eye-witnesses to the Triangle Waist Company fire, in order to complete this investigation. I wrote to the District Attorney if that would interfere with the trial of the proprietors of that establishment.

He replied (reading): "In view of the fact that Judge Crain has set the case down for trial on Monday next, would it be satisfactory for you to postpone the examination of witnesses as to the defendant's case for a short time?"

With the consent of the Commissioners, I will accede to that request.

The CHAIRMAN: That is very reasonable in view of the circumstances.

Mr. ELKUS: I regret very much that yesterday, owing to the death of a friend of mine, I was unable to be present, and I am very glad that my associate conducted the examination to the satisfaction of the Commission.

The CHAIRMAN: I want to say that we all were feeling the same way about it, early in the morning, and while not unappreciative of your services, we thought in the morning we would have a terrible time; we were very much surprised, therefore, with the way Mr. Shientag conducted the examination, and the Commission began to realize that, really, he has been doing a great deal more work than we had credited him with, and we want to congratulate and compliment him for his good services. I hope he will stay with us as long as we are in existence.

Mr. ELKUS: I am sure he will after that.

The CHAIRMAN: I want to explain my absence this morning. I was performing a public duty. I was assigned by the court to defend a man charged with murder in the first degree. I had to attend court in that case, otherwise I would have been here to-day at the proper time.

JOHN A. FITCH, called as a witness, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Mr. Fitch, what is your profession? A. I am a writer, a magazine writer.

Q. You are now a magazine writer? A. Yes.

Q. Were you formerly connected with the Labor Department in this city? A. I was.

Q. In what capacity? A. My official position was inspecting.

Q. What work did you do in the department? A. I made investigations for the Bureau of Labor Statistics.

Q. How long were you connected with the Labor Department? A. A little over a year.

Q. Did you make investigations as to the number of persons who worked seven days a week in the State of New York? A. I attempted to bring together what figures there were in the Department. I made no field investigation as to that.

Q. Yes. What did you find? A. Well, I did not find enough so that I can make any statement which will really give you the

facts as to seven-day labor in New York. I was able to form an opinion as to which industries are seven-day industries and was able to get together some figures which tend to indicate a considerable amount of seven-day labor, only enough to convince me that we had only a small fraction of the numbers on file in the Department of the amount who worked seven days a week. Now, the factory inspection bureau, in its report for 1909, reported, out of a total of one million one hundred and thirty-eight thousand nine hundred and sixty-five wage earners, thirty thousand four hundred and sixty-seven working in excess of sixty-three hours a week.

Now, that does not mean, necessarily, seven-day labor, but from personal examination of the records I know that a large majority of those men are working seven days a week; in some cases ten hours a day, and in some cases twelve hours a day.

I can also cite you information which was sent in voluntarily by the secretaries of labor unions to the Bureau of Labor Statistics, and those figures are more authentic, I should suppose, than the figures I submit, because the Bureau of Factory Inspection has made no attempt to find out positively that particular thing, the number of men working seven days a week.

They only record the hours per week.

Q. Now, have you a list of what you call seven-day industries?

A. I have a list that I have every reason to believe are seven-day industries.

Q. Will you state that list, or state some of them? A. Under transportation, that includes steam railroads, trolley lines. I would include under transportation, also, railroad repair shops; navigation, cabs and teaming, ice and milk delivery; under communication, telegraph, telephone lines and newspapers; under manufacturing, cement and lime, smelting and refining, or crushing, glass furnaces, mills and steel works.

The manufacture of certain drugs and chemicals, wood alcohol, mineral oils, paper, pulp, flour and cereals, flour products, beverages, liquor and malt; canning establishments, bakeries, artificial ice factories, with light and power plants.

Q. I think you have given us a very general idea now. May I ask you what your views are with reference to the compulsory day of rest for the workingman, and how you would compel such a day

of rest, if you believe it to be advisable or necessary? A. I think it is both advisable and necessary.

Q. Tell us why, and then give us your method of enforcing it and how it could be done? A. Do you wish me to tell why I think it advisable?

Q. Yes, first. A. Because periods of rest are necessary for any class of men in order to retain their physical health, — not only that, but in order to retain their moral health; in order to make them good citizens. A man who works seven days a week, even though his labor may not be excessive, is unable to perform the duties of a citizen. Now, as to the advisability of requiring a rest day, one day of rest in seven, it would appear at first that that is impossible, owing to the fact that there are many industries which must have, for various reasons, which I need not mention, I think, seven days a week. In order to allow those industries to operate seven days a week, the working force will have to be increased by one-sixth. Then one-seventh of the laboring force will be released each day in the week. That is, one-seventh will have Sunday off for rest; one-seventh will have Monday, and so on throughout the week.

That plan is not as Utopian as it sounds. It is actually in operation in France, in certain very important corporations. The United States Steel Corporation is adopting that plan in all its plants; it is experimenting with it, I had better say. The Lackawanna Steel Company, at Buffalo, with about four thousand employees, is operating with a plan similar to that, which they have adopted tentatively.

Q. Do you know what is done in foreign countries with reference to it? A. Almost all of the important industrial countries of Europe have adopted a law requiring one day of rest in seven, with a system of rest periods during the week that I have mentioned, or else periodical rest periods laws have been passed to provide for full compensatory rest periods, for each man who is at work on Sunday.

Q. With reference to that,— what legislation would you suggest? A. I would recommend a law requiring, perhaps I had better say a law should provide some means of determining which are the industries that must, for reasons of public necessity, or for technical reasons, and so on, operate seven days a week. Then

the law should require that every employee of any industry in the state should neither be required or permitted to work seven days in the week — that he should have one day of rest in seven.

Then I would require the Department of Labor to enforce this law. At the present time the Sunday law is not a part of the Labor Law, and is not enforced by the Commissioner of Labor.

Q. Who enforces it? A. That is a part of the penal law? A. That is a part of the penal law.

Q. Is it your recommendation that the Commissioner of Labor should have the power to enforce this day of rest as far as manufacturing establishments are concerned, or altogether? A. As far as manufacturing establishments are concerned, in just the same manner that he is supposed to enforce the factory laws.

Q. With reference to industries that require continuous labor, what have you to suggest, if anything, as to their being licensed to work continuously? A. It seems to me that that is about the only way to find out which industries are necessarily continued.

I would make a provision in the law, rather liberal, so that some officer exercises the power of judgment. I would think that officer should be the Commissioner of Labor. The law should be so framed that he could issue a license to those industries which had filed with him some proof that they ought to operate seven days a week, for technical reasons, for reasons of public necessity, on account of taking advantage of a season, or for other good and sufficient reason.

Q. Have you examined as to the constitutionality of the law requiring a rest day? A. I made a study of the laws. I made a study of court decisions with reference to constitutionality of different laws in the United States. I did that for the Labor Department, and that was published in a bulletin in the Bureau of Labor. I think I covered all the decisions of all the States affecting the constitutionality of the Sunday law, and I was greatly impressed with the fact that Sunday laws are held to be constitutional, not upon grounds of religious observance or any other religious thing, but upon the necessity of one day of rest in seven; and many of the courts have gone so far as to say that that law would be constitutional upon that ground, if any day other than Sunday had been designated as a day of rest.

Q. Therefore you are of the opinion, from your experience in research work, that it would be constitutional to pass an act requir-

ing employers to give each employee one day of rest in seven and forbidding an employee to work seven days in a factory? A. I am not a lawyer, but that is my opinion as a layman, after examining those decisions.

Q. Have you examined into the question of registering, or licensing factories? What is your opinion about it, whether they should be registered or licensed, or both? A. I have given so little consideration to that, I think my opinion would be of very little value. I recognize the necessity of some means of the Bureau of Factory Inspection finding these new factories. Off-hand, the system of registration appeals to me, but I have not looked into the matter very much.

Q. Now, you have presented to me a brief to show the necessity of a compulsory day of rest, and I would like, with your permission, to file that with the records of the Commission? A. I would be very glad to have you do so.

Q. Have you anything further that you would like to say to the Commission? A. I should like to hand you, also, this compilation of foreign laws on the subject.

Q. That would be very useful to us. A. It is a summary of the laws which I prepared for the Bureau of Labor, and, with their permission, I am presenting it.

Mr. ELKUS: Thank you, that is very satisfactory.

Examination by Miss DREIER:

Q. These industries which work seven days a week, that means the nights also? Seven days and seven nights? A. Not always, but I think in most cases; for instance, navigation not nearly so much at night as in the daytime; teaming not nearly so much at night as in the daytime, but most manufacturing industries, both day and night.

Q. And do you know whether it is a twelve-hour shift or eight hour shift? A. That varies; I can't say positively as to that; some of the most important industries, such as steel, use a twelve-hour shift.

Q. And then, in the change from day to night, what happens to the men? A. In the steel industry, it is necessary to differentiate

between different departments. The blast furnace department is the first operation in the steel industry, and so there is a 24-hour shift in changing from day to night, coming once a month or twice a month, so that the men who are working on the day shift change over on the night shift, they do that by working through Sunday, the daytime, through Sunday and not finishing until Monday night.

Q. In the blast furnaces? A. In the blast furnaces. That has been the custom. Now, I have been told by the officers of the Lackawanna Steel Company that they have adopted such a plan whereby one day of rest is given in the manner I have just mentioned.

By Mr. ELKUS:

Q. In Buffalo? A. Yes.

The WITNESS: If that system is fully in operation, it means that the 24-hour shift has been done away with; it can be done absolutely where that plan is adopted.

By Miss DREIER:

Q. In working blast furnaces, is it not hard enough to warrant shorter work than twelve hours a day? A. Well, I think that any work warrants a shorter work day than twelve hours. There are periods of rest in blast furnace operations. Men are not constantly at work. At times they are working desperately hard in very great heat, but those occasions come only one in about every four hours, and they work 30 or 40 minutes, perhaps, in that heat. I think that probably, from the standpoint of physical exertion, they can get along with twelve hours very well, but from the standpoint of social well-being, that ought not to be, and they ought not to be kept in that atmosphere for that length of time. And I may also state that there is a gas about blast furnaces, carbon monoxide gas, which has been found to be very dangerous and which cannot be entirely done away with. The men are constantly breathing that gas, and

are, with more or less frequency, overcome by it. That was found by the Illinois Industrial Commission.

Q. We haven't any record in New York State upon the effect upon the men of that gas? A. None at all.

Q. A man who was a witness yesterday said that in the steel industry the hours were comparatively short, from nine to ten hours. You have not investigated the steel industries in this State? A. Yes.

Q. Can you tell me anything about that? A. It varies with the different companies and changes from season to season, I think, though it is difficult to make a general statement. However, throughout the United States, a majority of the workers are employed twelve hours a day, in twelve-hour shifts. A considerable number of common laborers work ten hours. I think, very recently, the Lackawanna Steel Company have changed from employing their common laborers twelve hours a day to, in the last three months, perhaps, I am informed that they have changed it from twelve-hour shifts to ten-hour shifts, that is, the common laborers, and that released perhaps fifty per cent of the men from the twelve-hour to the ten-hour shift. In common processes the men work twelve hours a day almost everywhere.

Witness excused.

Mr. ELKUS: William H. Donahue.

WILLIAM H. DONAHUE called, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. What is your name, your full name? A. William H. Donahue.

Mr. Donahue, are you an inspector of the State Labor Department? A. I am.

Q. How long have you been with that Department? A. Between five and six years.

Q. Now, have you been engaged in examining factories, that is, buildings, for violations of the Labor Law? A. For the Labor Law violations, that has been my duty.

Q. How long? A. Well, between five and six years, I have been engaged in that.

Q. Have you inspected for practically all of the last two years? A. Yes, sir.

Q. With reference to seeing whether doors open inwardly or outwardly? A. Within the last three months I have examined for those conditions specifically.

Q. Within the last three months? A. Yes, sir, within the last three months I have examined for those conditions specifically.

Q. Before that you did not? A. Before that I examined for all violations of the Labor Law, including the opening outwardly of doors.

Q. By whose instruction, within the last three months, have you devoted yourself to finding out if doors open inwardly or outwardly in manufacturing buildings? A. I believe it was on complaint of the Fire Department that I examined a number of buildings in the last three months.

Q. How many cases have you examined within the last three months where you found the doors opened inwardly instead of outwardly? A. I think in almost all the cases that the doors open inwardly.

Q. About how many cases were there? A. I should judge about 35 buildings.

Q. How many? A. Thirty-five buildings.

Q. 35 buildings you have examined — that is approximately? A. Yes.

Q. How many manufacturing establishments were in those buildings? A. Approximately 200. There would be an average of about six manufacturing establishments to a building.

Q. In those two hundred manufacturing establishments, you found practically every one had doors that opened inwardly instead of outwardly? A. Yes, sir; that was the complaint by the Fire Department. I ordered, where practicable, that the doors should be opened outwardly.

Q. In how many cases did you find it practicable to have the doors opened outwardly? A. At a rough estimate I should say

that in two-thirds of the cases I ordered them to be open outwardly.

Q. In the balance you didn't order it, because it was impracticable? A. For the reason that it was impracticable, for this reason, that it would create more dangerous conditions in my opinion to open the doors outwardly than it would be to leave them in their present condition.

Q. Was it because they opened directly on the staircases? A. On the staircases or in the passage way. For instance, if you will let me state one instance?

Q. Go ahead, yes. A. I had a complaint a short time ago in a building at 48 Canal street. I visited that building and took careful measurements. On first sight it looked to me as if it was practicable to open those doors outwardly. I found in that building a hoist-way, that was guarded by a guard rail, and in addition thereto by doors that ran the whole length of the opening in the shaft from floor to ceiling. The first floor I found that the doors could open outwardly in my opinion, and when I got up to the next floor, I found hoist way doors were open, and if the doors were swung one side the frame of the door would obstruct the stairway; and if swung the other side, the frame would strike the hoist-way door so that it would lock the people in the work room. I felt that in my opinion it was not practicable to open the door outwardly for the reason that it would make the conditions more dangerous than as they at present exist.

Q. What is the law on the subject? A. The law says that all doors leading to or into a factory shall open outwardly where practicable.

Q. Is it not possible to have the doors that can't open outwardly taken out, because it is impracticable to have them do so, and have them made into sliding doors?? A. That is a splendid recommendation and it is a fine thing and it should be done, but with this suggestion, in my humble opinion, I think, as Commissioner Sherman stated, that there are a very large number of factory workrooms that have one, two or three persons. Now the door to open inwardly in that case or those cases, I think is satisfactory. The law might be mandatory and make them put a sliding door in every case where the doors could not be opened outwardly, but

you often find a factory workroom about 50 by 100 with only two people employed in that room, and in my opinion, where a door opened inwardly in such a room I think it is all right.

Q. Is it advisable where there are a number of people at work to have the doors open inwardly? A. Why then just such a condition will be caused as occurred in the catastrophe which happened last March.

Q. It means great danger where a number of people are employed in case of fire if the doors open inwardly? A. It means the pressure of people upon that door, that the pressure is going to prevent them opening the door at all; if the door opens outwardly the people would strike the door and at least break it through from its fastenings, if in no other way.

Q. To make the doors open outwardly is one of the most important things that the Department should enforce? A. I believe it should be enforced, that all doors should be opened outward, and if that is not practicable, they should have sliding doors, with the exception which I have mentioned, that is to be taken into consideration, the number of people that work on a floor. In my opinion, if it is not practicable to open the doors outwardly on account of the construction of the building, on account of the newel posts in the hall, or on account of the width of the passageway, I think there should be a law to have that door made a sliding door.

Q. Now in the Asch building how many bodies were found around the doors which opened inwardly? A. I only know from the testimony of people.

Q. Of course? A. And newspaper statements.

Q. How many were there? A. There were a great many.

Q. A great many bodies around the doors? A. There were a great many bodies around the doors according to the papers which I have read.

Q. Were there fifty or more? A. Yes.

Q. Will you tell me why your Department did not order the opening of these 160 doors outwardly that you discovered and which you ordered opened within the last three months? A. I cannot say as to that, unless the inspector that examined that building thought in his opinion that it was not practicable to open the doors. Of course every man has his judgment and I have mine.

Q. You said your judgment was that two-thirds should be opened; there were two hundred were there? A. I should judge so.

Q. That would be 150 or 130 or 140 odd? A. Yes.

Q. Which, in your judgment, if they remained open inwardly, would cause danger in case of a fire and there would be the possibility of a repetition of a catastrophe like the Triangle Waist fire? A. Well——

Q. Which would cause another catastrophe. That leads to this question. Should such a matter of life be left to the discretion of an inspector? A. I think it ought to be.

Q. Now you say these buildings had all been inspected by other inspectors before you—every one of them? And in the one hundred and odd cases, one hundred and forty cases the inspectors of the Department found that these doors were not practicable to open outwardly, that is right, is it not? A. Yes, sir.

Q. And you came along and ordered them all opened outwardly if practicable. Now you mean to say in spite of that, that it would be the proper thing to do regarding the safety of life and the people working in those factories, to leave it to the discretion of other inspectors? A. I believe the inspectors before the fire did not appreciate the amount of harm that a door opening inwardly would do. The Fire Department has no doubt inspected those buildings and I don't know of any complaint that they have made heretofore about the same condition.

Q. You did not begin your work until about three months ago? A. On those complaints, yes, sir; that is right.

Q. And that was in August? A. I believe in August, yes, that was the time.

Q. The Triangle Waist factory fire occurred in March—when their attention was called to it? A. I believe that I know a number of orders were issued to open doors outwardly subsequent to the fire.

Q. Can you tell me how many orders were issued in the year 1910 for doors opening outwardly? A. I have no facilities for knowing what orders were issued.

Q. You don't know? A. No.

Mr. ELKUS: That is all, unless the Commission desire to ask some questions.

By Miss DREIER:

Q. Do you know whether your orders were complied with, without any protest? A. What is that?

Q. Were your orders to open the doors outwardly complied with? A. A great many have been complied with.

Q. Did you find any locked doors? A. I have men in two cases in court to prosecute for locked doors.

Q. I understand the courts have not been very severe —

MR. ELKUS: Locked doors?

The WITNESS: Locked doors; yes, sir.

Q. The courts have not been very severe in punishing the people? A. If the Commission will permit me, I will give a little experience that I had. On the 10th of last December I had a manufacturer at the corner of Spring and Orchard streets arrested for locked doors. He had five lofts in the building. On the fifth floor there were fifty people at work. I entered it by way of the freight elevator, the only way of access to the lofts.

MR. ELKUS: What is the name of the manufacturer?

The WITNESS: Joseph M. Delany & Company. I found the doors on this floor locked and the key in the possession of a man who was off the premises. I had the manufacturer arrested and sentence was suspended in the Court of Special Sessions.

Q. Has that not been the same with a great many of the cases? A. I don't know, that is the only case — I would have to look up the record for you to give you any definite information.

By MR. ELKUS:

Q. Did you submit oral reports or written reports to these people to make them open their doors outwardly, on these orders? A. What is that?

Q. Did you give them written orders or oral orders? A. They have written orders from the Department.

Q. Do you report the facts back to the Department with a recommendation? A. That is where the doors are ordered to be opened outwardly. But I don't do that on locked doors.

Q. Then the Department makes an order? A. Yes, sir.

Q. Now prior to your special examination on the complaints, beginning last August or September, did you in the year 1911 order any doors, or report any doors, that should be opened outwardly? A. I have; yes, sir.

Q. In how many cases? A. Well, I could not tell you in how many; only roughly guessing.

Q. Well, give me a guess? A. I should say ten.

Q. That is in ten cases your inspections prior to last September, you ordered doors to be opened outwardly? A. I might be wrong. My province is not inspecting, my province is investigating.

Q. What? A. Investigating orders issued by other inspectors and where I find the conditions warrant it, I issue orders.

Q. The cases of locked doors, when did you find those? A. One a week ago last Monday, and I found the other one about four weeks ago.

Q. Where did you find the one last Monday? A. Canal street, 359.

Q. On Canal street? A. Yes, on Canal street, No. 359.

Q. What is the name of the proprietor of that place on Canal street? A. Rosen & Ellis.

Q. How many doors did you find locked? A. One door was not locked; it was nailed, not locked.

One door in the partition was 25 inches wide, and that was open, and that opened directly at the foot of the stairs. The other door was at the other end of the partition and nailed up with cleats. I visited that place to find out whether the outside door opened outwardly or not; I found the best door in the partition. It was part of the construction of the building. It was nailed up with a cleat, and I laid the matter before counsel and swore out a warrant for Mr. Ellis.

Q. When did you take out the warrant? A. The papers I believe were to be at my house to-day. I have not received the papers as yet.

Q. How many people were employed where the doors were nailed up with a cleat? A. Seventeen people.

Q. Seventeen people? A. Yes.

Q. What did they say as to the reason why they had it nailed up? A. They said they found it that way when they moved in the building. I said, "When did you move here?" He said, "Six months ago." I said, "Do you mean to tell me that you left this door this way for six months." He said, "I found it this way when we got here." I laid the facts before the counsel.

Q. Where was that? A. That was at 359 Canal street, the fourth floor, manufacturer of clothes.

Q. In the meantime was the door closed up? A. The door was opened in my presence and it took eleven minutes to do it.

Q. It took eleven minutes to get out the cleats, they had so many of them? A. Yes, sir. They had to go out on the outside and take a hammer and drive it open from there. They could not open it from the inside.

Q. Will you tell me why in the last six months that was not discovered by some inspector? A. You know with our limited force of inspectors that we can only inspect it once a year. It probably was not inspected from the time a year before that.

Q. And do you believe that a man should not be permitted to begin business until he gets a license? A. I certainly believe that there should be some surveillance.

Q. How about the delay in prosecuting people for violation of the Labor Law? A. I have seen, I saw in the Special Sessions Court, two weeks ago I was there and I saw the pleadings in 82 cases; and with one counsel and an assistant I think that they do pretty well to get the cases out for the inspectors in the time they do. The Legal Department of the Department of Labor is a very hard-worked Department.

Q. Are you familiar with the cases of Rose Clas? A. I am.

Q. Do you remember that you reported a violation on June 17th, to remove bars from windows? A. I do.

Q. Did you make that report? A. The inspection was made by an inspector and I investigated the complaint, with his orders. and found the bars had not been removed.

Q. When did you find that the bars had not been removed? A. I believe it was in June.

Q. On June 17th? A. I believe that is the date.

Q. Why was it that the order was not complied with until October 23rd, last? A. When I first investigated the order nobody was at work in that shop.

Q. How about now, have the bars been removed? A. They are out of there.

Q. When were they removed? A. I don't know. You have the record.

Q. My record shows that they were removed October 23rd? A. I believe that is right.

Q. That is three or four months or five months after they were ordered removed? A. In the meantime this place had been closed down in the summer months. There were two people working there when the bars were removed.

Q. That is a dressmaking establishment? A. A dressmaking establishment; corset-making establishment.

Q. Take the case of 215 Bowery, Charles R. Furelli. The conditions were reported filthy? A. Yes.

Q. They were ordered to clean up the water closet and clean up the place, and is it the fact that the conditions remained as they were until October 23rd. A. Until October 23rd; well I don't believe they remained there that long. I believe that the day that Furelli was taken in the Magistrates' Court and he got released that it was fixed. There was a great lapse of time that we were unable to find Mr. Furelli, and to take a defendant in the court you must know who you take. He was as elusive as a flea. You could not find him. You could not get him. I visited his office fifteen times and finally took out a warrant and I never saw the man until the day that we got him in court. The policeman was a week in getting the warrant served and landing him in the Magistrates' Court.

Q. Isn't it a fact that it took six months to bring him up in Court of Special Sessions? A. It was through no fault of ours.

Q. But is it not so? A. Yes.

Q. And in the meantime conditions remained the same? A. Yes. But not after the day he had the sentence suspended.

Q. He did not get a suspended sentence for six months. Six months after the Department issued an order the conditions were

allowed to remain the same until he was brought into Special Sessions, until the end of October, I believe it was October 23rd, 1911, when his sentence was suspended, and then he cleaned up the place. I am not finding fault with anybody. A. I never returned to the premises after I had a warrant out for Mr. Furelli.

Q. Did anybody else go there to see whether or not the conditions had been improved any? A. I could not say, I do not know.

Q. How many people were in that place? A. It was filled with four factories, I believe there were fifty people working in the building.

Q. Now, of course, you agree that that state of affairs should not exist? A. What state of affairs?

Q. Disclosed by these facts. If you issue an order from the Department ordering a man to clean up the closets, and remove the filthy condition in the factory where there were fifty people at work, which order was issued on April 4th, don't you agree that it should not take until October 23rd to improve that condition? A. I think there ought to be some summary way to deal with a man who owns a building, that is what I think. I think that it should be done. That is the only way that we can reach him.

Q. Couldn't it be done by a daily inspection of a building as in that particular case? A. You would have to have a large force of inspectors. That possibly would be a good way to put an end to those conditions.

Q. Couldn't you close the place as a nuisance if you found that the man did not comply with your orders? A. No, sir.

Q. You couldn't get the Board of Health to close it? A. I am not sure, I don't know.

Q. You see the trouble is that there is a duplication of authority. The Board of Health has jurisdiction as a matter of law over all water closets and toilets, and if not cleaned up, they could put up an unsafe notice or dangerous condition notice? A. I have never seen such notices upon buildings.

Q. When you could not find this man for weeks and weeks, and the place remained the same, why couldn't your Department get the co-operation of the Board of Health and simply stop the

business from being carried on until they remedied it? A. I don't know, I am sure.

Mr. ELKUS: Have you any questions to ask?

By the CHAIRMAN:

Q. I just want to ask you, you related that you had a man arrested upon a warrant. I don't know whether it was a warrant?

A. It was a warrant, yes, sir.

Q. Where a door was locked? A. Yes, sir.

Q. And fifty people were working there? A. Yes, sir.

Q. After the case had been disposed of, or in between the time that the case was first brought to court and the final disposition of it, there was no inspector to go and see whether the doors were kept open? A. I went there myself after the suspended sentence. He had complied with the law even before the action had been tried, but if a warrant is lodged on the 25th of October and a man complies with it on the 30th of October, why, in those few days a good many people's lives could be lost with locked doors.

Q. What reason can a manufacturer have for keeping his door locked? A. They claim that goods are taken away and stolen by employees, passed out of the door to a confederate. That is one of the reasons.

The CHAIRMAN: That is all, I guess.

The WITNESS: Now, Mr. Elkus, if you please, that case at 264 Division street, do you wish to hear that?

Mr. ELKUS: Yes.

The WITNESS: That was 264 Division street, what is commonly called a sweat-shop building or a building on the East side, and I took careful measurements in that case and saw, in my opinion, that it was very impracticable to open the doors outwardly.

Q. How many people are employed there? A. At the time of my visit there were 521 people.

Q. How large a building is that? A. That is a six-story building, 25 by 100.

Q. 25 by 100? A. Yes.

Q. Do people live there also? A. What?

Q. Do they have living apartments there? A. No living apartments. The ground floor is a livery stable or a stable of some kind.

The second floor, one flight up is a rag shop; and above that is a clothing manufacturer. Now, my measurements taken at the time show that the landing at the head of the stair was five feet ten inches by two feet five inches and the passageway in the hallway, if the hall door was open directly on the landing at the head of the stairs, the passageway in the hall was two feet seven inches wide and the door to the workroom was two feet nine inches wide. To open that outward would not only congest the landing or passageway, but would actually make very more dangerous conditions.

Q. Why didn't you order sliding doors? A. I have no authority to order sliding doors.

Q. You have full discretion. Can't you make an order in this form, that unless they make a sliding door that they must open the door outwardly? A. I have never thought of that, but there is nothing in our law to allow us to order a sliding door, and in some cases where they open outwardly, we would simply make a more dangerous condition by ordering them to change, I mean where they open inwardly.

Q. In the first place, you realize the condition in a building of that sort with the number of employees that are employed, that it would be far better and far more justifiable — far more conducive to the safety of life in the case of fire to have a door which did not open inwardly? A. I believe it would be safer.

Q. Have you made an examination to see whether you have got the power under some other provision of the Labor Law to require sliding doors, or to make them remove the door altogether? A. I am not able to tell you that.

Q. Have you asked the counsel of the Department or the Attorney General? A. I have not.

Q. Will you do so? A. I will do so, yes.

Q. Of course a sliding door would obviate your objections as to impracticability? A. Yes, sir.

Q. And there would be much greater safety? A. Yes, there would be. In the case of a certain building, I saw a door open outwardly that obstructed the building, some three weeks ago. I met the agent of that building and personally called his attention to that fact. I said, if you have a sliding door here you would make it a great deal safer. And he voluntarily put that in.

Q. Have you tried that in Division street? A. You are never able to find the owners or anybody else in authority in those places.

Q. Why didn't you write them a letter? A. Any letters you write them are never read. They remain unanswered.

By Miss DREIER:

Q. It has been suggested that swinging doors would answer the purpose? A. Swinging doors would be very much better than doors opening inwardly.

By Mr. ELKUS:

Q. You can order a door that opens outwardly and inwardly at the same time? A. Yes, sir.

Q. Why didn't you do that in Division street? A. I appealed to the law. The law says that it should open outwardly, and to open outwardly would be impracticable.

Q. Then you would be in favor of an amendment to the law which would permit the Department to order a sliding door, if necessary? A. Undoubtedly, I would be.

Q. You would strongly urge that? A. When we go into court, we arrest the defendant and it has been my experience that we have been held literally to the interpretation of the law, and if there is any favor to be decided it always goes to the defendant. There is no favoritism shown to the Department. That is my experience. I don't want to be harsh in criticizing anybody, but that is my experience. We have to follow the letter of the law and even when we do that we are told that our complaint is technical. Commissioner Sherman testified to the very same thing yesterday.

By Miss DREIER:

Q. In the matter of locked doors, do you have to go to court in the majority of cases before they will do as you order them?

A. I insist upon the door being unlocked in my presence. When you come into court, the Judge, the Magistrate will ask you the very first thing — how long did it take to get the door open. That is one of the things they want to know.

Q. What guarantee have you that they will keep it unlocked when you go? A. We invariably go back to find out whether they do or not. Where we have a case of that kind we send an inspector to see if they keep it unlocked.

Q. If you do find it locked, what do you have to do? A. I don't quite understand you.

Q. If you find the door locked, after you have ordered it unlocked, what do you do? A. It would be a second violation against the man. I have never found such a case. If I should find it, the only thing I could do would be to start another case against the man, that is all.

Q. Would you suggest any power in the Department to, instead of taking the case to court, to have some other action against him, a fine or anything like that? A. I don't know any other way it could be disposed of satisfactorily without going to court.

By Assemblyman SMITH:

Q. What would you say to giving the Magistrate summary jurisdiction in all these cases? A. I am not prepared to answer that question, Mr. Smith. I don't know just exactly what I would say to that question.

Q. You can see a benefit would come if the case would be disposed of, immediately, and not be held up and the Department would not be obliged to wait until such time as it had gone through all the machinery of the District Attorney's office to bring it before the Court of Special Sessions? A. I am not versed in that, I could not answer the question intelligently.

The CHAIRMAN: The Commission will take a recess until 2 o'clock.

Whereupon at 1:05 P. M. the Commission adjourned to meet again at 2 P. M.

Adjourned to 2 P. M.

AFTER RECESS.

JACOB POLONSKI, called as a witness, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Where do you live? A. 602 West 157th street.

Q. Where is your place of business? A. 31 West 21st street.

Q. What is your business? A. Cloaks and suits.

Q. Do you manufacture cloaks and suits? A. Yes, sir.

Q. How many people do you employ? A. In the season about sixteen, and now about twenty-five.

Q. People who work the sewing machines? A. Yes, sir.

Q. Mr. Polonski, you have one loft, have you, in this building?
A. Yes, sir.

Q. How many staircases are there leading to the door? A. Two.

Q. One back, and one front? A. One on one side and one on the other.

Q. One on one side and one on the other? A. Yes, sir.

Q. How many elevators? A. Two.

Q. Which way do your employees go up, by the freight elevator?
A. Freight.

Q. And the staircase by the freight elevator? A. Both sides are open.

Q. What? A. Both sides are open.

Q. Both sides are open. On November 15th, you had a padlock, didn't you? A. Well, the Holmes put it up.

Q. Holmes put it up? A. Here is the contract they made. They refixed those doors, and they made a contract to fix those doors up, and I paid——

Q. You mean the Holmes Electric Protective Company put a padlock on the door? A. Yes, sir.

Q. Well, did you have to let them do it? A. Let me explain that to you.

Q. Well, go ahead. A. A couple days ago, I think the owner made an alteration on those doors, I do not know how long ago it is, last week.

Q. Who did what? A. The owner of the building made an alteration on those doors. He made them and did not put in a new lock. I do not know, and I have the Holmes protection, and whenever they take these doors off the springs of the door was on the other side, and you could not close the door, and they immediately came up and made a contract with me to fix those doors for six dollars. Here is the contract, and they contracted to fix two, and they only fixed one side, and that door is open all the time. They were supposed to fix them and they were supposed to have them fixed the next day, and did not show up. Now, I have telephoned to them every day, which I can prove.

Q. When was it they started to fix these, when was it? How long ago? A. From the 10th.

Q. The 10th of November? A. Here is the contract.

Q. Now, on the 14th of November—— A. Here it is.

Q. One moment, now? A. Here it is.

Q. Early in November you were notified that you had a padlocked door, and that it was kept padlocked during working hours?

A. No, sir; it never was padlocked all the time.

Q. What? A. Never padlocked until about the 10th of November.

Q. Well, from the 10th of November on—it is padlocked to-day, isn't it? A. No, sir.

Q. When did you open it? A. It was open to-day. They came up again and fixed it, because they had not completed; that one side was completed last week.

Q. When that is completed, you don't intend to have a padlock? A. On the 13th.

Q. What? A. On the 13th they completed one side.

Q. Well, on the 15th of November, it was reported to us it was still locked? A. Well, that was the other side they locked because when it was opened we could not close it the springs did not allow the door to go back.

Q. When the Holmes people get through, do you intend to have any padlock there? A. Well, it was never——

Q. When the Holmes people get through are you going to have any padlock there? A. No, sir; never had them.

Q. The doors will be open? A. When the springs are every time taken off at eight o'clock.

Q. So that is only temporary? A. That is only for two days. Here is the contract from the Holmes——

Q. That is all. A. I am telling you I always have protection.

(The witness was excused).

HENRY MORGENTHAU, a witness called and duly sworn,
testified as follows:

Examination by Mr. ELKUS:

Q. Mr. Morgenthau, what is your business? A. Real estate.

Q. I beg pardon? A. And attorney at law retired.

Q. Attorney at law; retired attorney at law? A. Yes, sir.

Q. And you had considerable to do with real property in the city of New York? A. Yes, sir.

Q. Mr. Morgenthau, what is your position with the Committee of Safety? A. I am Chairman of the Committee of Safety.

Q. Will you explain to the Commission very briefly what the Committee of Safety is, so we may have it on the record? A. After the Harris & Blanck fire, there was a mass meeting at the Metropolitan Opera House, and as the result of the mass meeting, and the result of some other meetings, a committee was organized whose functions were to be to see what laws could be passed and what steps taken to prevent similar disasters in the future. We organized, and have since made various inspections, and have made suggestions to improve fire protection.

Q. Mr. Morgenthau, did your committee employ a force of inspectors to make inspections of various buildings? A. We did.

Q. Factory buildings? A. Yes.

Q. To determine just what the conditions were? A. Yes, sir.

Q. Did you yourself personally make any investigations? A. I did.

Q. Now, will you tell the Commission generally in your own way the conditions which were reported to you as existing, and which you yourself found in factories in the city of New York?

A. We investigated four hundred and thirty-three buildings, and we found in those four hundred and thirty-three buildings that there were two hundred and thirty-four dangerous stairways; there were seven hundred and sixty-nine doors that constituted elements of menace to life through opening inward or through being locked, barred or otherwise obstructed; there were three hundred and thirty-two dangerous cases of defects in fire-escapes, of which sixty-three were inadequate or dangerous drop ladders, and one hundred and one dangerous exits from fire-escapes. To elaborate this from my personal investigation, I find a great many of the fire-escapes cannot be used because they are blocked by iron doors.

Q. Cannot be used? A. Cannot be used. There were eight hundred and sixteen cases of dangerous obstructions to fire-escapes, and five hundred and seventeen cases of blocked approaches to fire-escapes, and there were one hundred and forty-nine cases of criminally careless handling or storing of inflammables, and one hundred and sixty cases of unclean accumulation of rubbish, inviting easy conflagration. Now, we found——

Q. Just what time were these inspections made? A. These were made during July, August and September.

Q. Three months? A. Yes, sir.

The CHAIRMAN: Of this year?

The WITNESS: Of this year. And I have made some personal investigations this week.

Q. Yes. A. And I perhaps had better talk of those cases that came under my personal observation. I find from the investigations that the fire-escapes in their present condition are almost useless in the case of a large number of people being employed on any floor, and a great many of the fire-escapes lead into cul-de-sacs. I have this mapped out, and would like to show this to the Commission. In the block between 11th and 12th streets, Broadway and University place, most of the buildings have their fire-escapes right into a yard, into a little bit of yard. It would be absolutely im-

possible for any one to escape from there. It has been suggested that they put a fire-proof tunnel in that block so as to allow the people to escape in case of a fire.

Q. You mean the little red spots on that diagram mark the end of the fire-escapes, is that right? A. Yes, sir.

Q. And that after they get in that little yard, sometimes, I should say eight by ten or eight by twenty, there is no way of getting out? A. About four by twenty; they are not wider than four feet.

Q. They are four feet wide and twenty feet deep? A. Yes.

Q. And it is impossible to get out unless you were a mountain goat? A. It would be worse than being caught in the fire. As you see, the number of employees in that block is something enormous.

Q. How many are there? A. I just want to refresh my memory. There are three thousand four hundred and fifty-three, excluding the school, the hospital, and one office building. There are seven hundred and fifty children in the school, but the school is provided with unusually satisfactory fire-escapes; they have two fire-escape staircases.

Q. On the front of the building? A. In front of the building.

Q. Now, did you inspect this block yourself personally? A. Yes, sir.

Q. Do you want to tell us anything further about the factories you went through, call attention to these fire-escapes? A. Now, you take that corner building which is eleven stories on the corner of University place and Eleventh street, it has a little bit—a very small fire escape, two of them, and if more than three people would attempt to come out of there, they would be blocked because the shutters open right on the fire-escape. And this is only typical of a number of blocks that are in the same condition. Of course——

Q. Well, now—— I beg your pardon. A. As you go through these various buildings and see there are a number of them where one hundred to two hundred or two hundred and fifty people are employed on one floor, it is self evident that at any time a fire breaks out you would have a recurrence of the Washington place fire disaster.

Q. Why would that be, Mr. Morgenthau? A. Simply because they could not be moved out of any one floor; the fire-escapes are inadequate.

Q. How about stairs and elevators? A. Well, of course, if the elevators were unobstructed they would take down a great many people and the stairs a great number.

Q. You say the elevators ought to be reconstructed. A. No. If they could continue to run, if the fire did not prevent their running, unobstructed I said.

Q. Now, did you examine any other factories so as to describe to the Commission the factory itself and point out the faults therein, and then suggest or make recommendations as to improvements? A. We examined a number of types of six and seven story non-fireproof buildings in the southerly part of the city. We found most of them where the first floor was occupied as a stable, the second floor was generally occupied as a synagogue or meeting room, and the upper four or five floors as factories. Most of these buildings, and I have a number of them here that I visited, have wooden stairs, very narrow—two feet six, or three feet wide, and very unsatisfactory fire-escapes. They are generally the vertical fire-escape, which is very poor for women to use. These buildings did not have adequate fire protection, and are absolutely fire traps. Many of them have no water pails.

Q. Where are they located? A. Well, I have referred to some on Ridge street, and Madison street, on Pitt street, Lewis street, and in that neighborhood, Houston street.

Q. What businesses are carried on in them? A. Most of them were cloaks and suits and shirt waists, corset covers and that class of business.

Q. At employing women? A. And a number of them rags; in several of them there were rag pickers.

Q. Women or men? A. Both.

Q. Now, can you take any one particular factory and describe it to the Commission? Did I interrupt you before you finished? A. No, sir. Now, you take 153 Lewis street. There were thirty-six people in one room. The floor was packed with goods, and there was not a fire pail in the place, no automatic sprinklers, and no means at all of extinguishing a fire until the firemen would come, the fire brigade.

Q. You say at least thirty-five people were in one room. How large was the room? A. I should say about three thousand square feet.

Q. That is about — A. About fifty by sixty.

Q. In that room what was the egress from it and ingress to it? A. There was just one door.

Q. From the staircase? A. From the staircase.

Q. That is a wooden staircase? A. That is a wooden staircase.

Q. The door opened in or out? A. That opened outward. Now, in many of these factories there is a great deal of gas used. They use it to heat their irons with, and there is a lot of gas escaping owing to the tubes being flexible and the tubes of those gas jets, none in fact that I saw, had wire cages, which ought to be introduced compulsorily. And all of these staircases are poorly lighted. There is no light in them at all, no gas light, and no other light, and it seems to me that that type of factory building is the worst thing that I saw.

Q. In what way — that is a six-story building, old style? A. Yes, with old style wooden stairs; the stairs would burn, too.

Q. And the staircases are very poor? A. Very poor, very steep,

Q. One staircase to a building? A. That is all.

Q. One elevator, as a rule? A. No, sir.

Q. I beg pardon? A. There is not. In some of them they have shafts where they just have a pulley that would act like a chimney, almost. They pull up these rags and bundles.

Q. Now, did you examine any of the buildings yourself in the upper part of the city around the twenties? A. I did; yes, sir.

Q. Tell us what ones you examined, and give us a typical case? A. Now, we examined a building in West 25th street, and we found it was a building about 100 feet wide by about 100 feet deep.

Q. What number on 25th street? A. There was 119 and 21.

Q. West or East? A. West 25th street.

Q. That is a new building? A. That is a new building.

Q. Now, tell us what you found there? A. There was one fire-escape in the rear. There were two staircases. There were one hundred and twenty-five to one hundred and fifty people em-

ployed on the floor that I examined,—it was blocked with a lot of merchandise. It was a cap manufacturing floor I visited, and it would have been absolutely impossible for the people to get out in case of fire.

Q. Tell us why? How many people were there there? A. About 125.

Q. And how about the floor? A. The floor was one hundred feet wide, but they only used it to the depth of about thirty feet for manufacturing, and the other sixty or seventy feet was filled with goods, manufactured goods.

Q. So the space thirty by one hundred was the space allowed for one hundred and fifty employees? A. Yes, sir.

Q. Were there machines there? A. Yes, sir.

Q. About how many? A. I could not tell you.

Q. Why do you say it would be impossible for these people to get out? A. Because the staircases are very small; few of them would reach the staircases, they would block it. They are dark; they are not light, natural light, and it would be impossible for them to get down, especially when it is an eleven-story building, and they would become choked before the people could all begin to get away.

Q. What floor was this factory on? A. That was on the third floor.

Q. How wide was the staircase there? A. Well, I should say about four feet.

Q. Does it wind around the elevator? A. No, sir; but it was a winding staircase.

Q. Was it separated from the elevator by a fireproof partition? A. No, sir; no fireproof partition.

Q. It was not enclosed by a fireproof partition itself? A. No, sir.

Q. How about the doors, do they open inward or outward? A. They opened inward.

Q. Inward? A. Yes, sir.

Q. When did you make this examination? A. The day before yesterday.

Q. Was there any reason why they should not open outward? A. None whatever.

Q. Was that the case in every floor of that building? A. I did not examine but the two floors, and I do not know.

Q. In those two floors they were? A. Yes, sir.

Q. And that condition of the doors opening inward and these people being employed there, had existed for some time, had it not?

A. Yes, sir.

Q. What kind of fire-escapes did they have on that building?

A. They had a good broad fire-escape in the rear.

Miss DREIER: One fire-escape for this eleven-story building?

The WITNESS: Yes.

Miss DREIER: The people could not have gotten out of there?

The WITNESS: No.

The CHAIRMAN: Did you say wooden stairs, Mr. Morgenthau?

The WITNESS: No, sir; not in that building; there were stone stairs.

Q. Going back to that block that you examined, Mr. Morgenthau, 11th and 12th streets and University place and Broadway, did you have any conversation with any of the proprietors of the establishments there about fire drills? A. Yes.

Q. Well, tell us what happened with reference to that? A. You mean at University place? A. Yes, sir.

Q. Yes, sir. A. Well, they have had no fire drills in that building.

Q. Did you get on the eleventh floor of that building, did you have any talk with the proprietor of it about whether he would have a fire drill? A. I talked to the foreman about that; yes.

Q. Well, what did he say, or what did you say to him, and what did he say to you? A. He told me — oh, I have forgotten exactly what he said; I would not want to swear to it.

Q. Did he say it would take too much time? A. I think he said that it was impossible, that he had a lot of ignorant men there. He did not speak of it — lay any stress on it.

Q. Did you examine the Venetian building on West Broadway?
A. Yes, sir.

Q. Well, tell us about that. A. We went up to that building and we found that they had a door dividing the lofts into two, and the fire-escape was only on the rear, and this door was bolted on both sides, and it was utterly impossible for the people to pass through, but while we were there the owner made a great show of insisting that this must be kept open all the time. Well, it was the only division between the two tenants, and it would have thrown the offices of the two tenants, or the factories of the two tenants into one, and they never will leave it open. I suppose at any time you inspect it you will find both sides closed, bolted, and it was there also the fire-escape was a little bit of an inadequate thing.

Q. Was not a wooden staircase in the building? A. It has an elevator, and has a staircase winding around the elevator.

Q. Not separated from it by a fireproof or any partition? A. No, sir; no partition.

Q. Mr. Morgenthau, you have given us a general idea now of the conditions as you yourself have found them. I want to ask you for your opinion as to certain matters which this Commission will have to consider. In the first place, would you favor the registration or licensing of all manufacturing establishments? A. I certainly would.

Q. Do you from your experience, as a real estate owner and operator, believe it would be any hardship upon the manufacturer in requiring him to be licensed? A. I do not think so.

Q. In the second place, you are familiar, are you not, Mr. Morgenthau, with the duplication of inspection? A. Yes, sir.

Q. The duplication all through every factory building that now exists in the city and State? What do you suggest to be done to remedy this duplication of authority? A. I should think that there ought to be some central bureau of inspection. Now, as we passed through there we saw, for instance, an infraction of the child labor law. There was a young child dragging heavy coats over the floor. They said she was helping her mother. And I should think what would become one of the dangers of these buildings is the improper electric lights, electric lighting, and if some one inspector could inspect a building thoroughly, and watch all the different

short-comings and report them, it would be much more satisfactory in the end. Of course, he would have to make his report to the various Departments. The only difficulty is that it would take people of unusual intelligence and experience to do the work, and whether they could be enlisted in this kind of work is questionable, unless they receive adequate compensation.

Q. What have you to suggest with reference to these buildings that you have described, the Rich and Lewis streets six-story old type of wooden staircase, doors opening inward? A. The first thing that I would suggest is that you recommend there be a law passed to stop smoking in any factory building.

Q. During working hours? A. During working hours. The second thing would be that you insist upon either—upon water pails or on automatic sprinklers, an adequate number of water pails.

Q. In all factories? A. In all factories. I believe that no matter what fire-escapes you have there, the more important thing is to enable the occupants to put out the fire when it first occurs. And then the other buildings——

Q. Well, Mr. Robb, of the New York Insurance Exchange, testified this morning that he thought that on these factory building and loft buildings exterior fire-escapes were practically useless, a waste of money, except, perhaps, for the firemen to come up with the hose and the water in some cases. Do you agree with him or not, Mr. Morgenthau? A. I would agree as to any vertical fire-escape; if you can't have fire-escapes, stairs like in front of the 12th Street school, or balconies, as we saw them, the ordinary fire-escape with vertical stairs is absolutely useless. It gives the tenants a fancied security which is bad, because they do not depend upon anything else. It takes an acrobat to save himself.

Q. What do you suggest, Mr. Morgenthau—perhaps I interrupted you—with reference to prohibiting the use of these old six-story buildings with wooden stairs, and wooden floors, as factory buildings? A. I would not go so far as that. I think they can be used for certain purposes, but I would suggest that you would limit the number of people that can be employed on any one floor, unless there were adequate provision made for their escape. You could semi-fireproof the staircases, and in fact, the entire halls. I think I would rather find a practical solution than a drastic one which could not be carried out.

Q. Do you think you could compel them to fireproof the halls?
A. You could.

Q. You think that is an expensive operation? A. I said semi-fireproof. Fireproofing would be very expensive, but if you have a sheet iron under and over the stairs and put iron treads over the stairs it would be a sort of slow combustion method. To fireproof these stairs would be quite expensive.

Q. Now, how about allowing new buildings to be built, what would you say in reference to that? A. I think that no building should be licensed or registered as a factory building unless it is fireproofed.

Q. Do you favor limiting the height of buildings for factory purposes? A. I do.

Q. In what way? A. Well, I should say that the height should be limited unless you had in these very high buildings fire walls which would make it so that there would be several units and people could have lateral fire-escapes instead of vertical by being compelled to go vertically — a section similar to what we have in our large steamships. We now have the protection against sinking by having a separate water-proof compartment, so that people could move from one side to the other. Then there would be no objection to high buildings. But if they are going to depend on vertical fire-escapes, it would be dangerous for any very large number of people employed in very high buildings on the upper floors.

Q. So your suggestion would be not to prohibit the erection of these buildings, but permit their erection provided they have fire walls and certain other fire safety appliances? A. I visited the National Biscuit Company's building, and they have three towers. I suppose the Commission knows what those fire towers are.

Q. Yes, sir; we are familiar with them. A. Now, I think that is a splendid provision.

Miss DREIER: That would not prevent overcrowding them in case of fire, and people being injured by overcrowding?

The WITNESS: That might happen.

Q. Mr. Morgenthau, would the erection of these fire walls interfere with the renting of the flats? A. They would not interfere

with them, but it might interfere in a few cases where people would have one foreman whom they wish to oversee ten thousand or twelve thousand square feet. Well, such factories I think that the law should compel to be put into a three or four-story building, if they have got to have such a large area, and they wish to oversee and economize as to these expenses, they ought to be compelled to locate in low buildings.

Q. Well, they could go on the third or fourth story of a large building or wouldn't that bring about the same result? A. It would not bring about the same result, because if you had a great many on the third or fourth floor, it would prevent people on the upper floor from escaping.

Q. What else have you to suggest, Mr. Morgenthau, to the Commission with reference to fire prevention, or safety of people in buildings? A. I think one of the dangers—I do not know whether you have gone into it—are these revolving doors.

Q. Yes, we will take that up. We have not gone into that. A. You have not?

Q. No. You mean revolving doors at the entrances to buildings? A. Where a large number of people are employed.

Q. Yes. A. Are very dangerous.

Q. Why? A. Bound to be blocked in case of accident.

Q. In case of fire? A. In case of fire, bound to be dangerous.

Q. Now, these doors have been found very useful to keep out the draught, and allow people to come in and out? A. They are very useful for that purpose, but that may be covered by vestibules. And of course, they will claim that you can so adjust it as not to have it blocked, but when a panic comes, a fire panic comes, there will be nobody there that will be ready to fix these revolving doors, so that they stand straight, and you can't get out on either side of them. It is a matter that I do not recommend, but I think it should be looked into.

Q. You bring that to the attention of the Commission? A. Yes.

The CHAIRMAN: I understand even that these revolving doors now, that where a sudden push is given in case of a panic, the doors fold against one another?

The WITNESS: Yes.

The CHAIRMAN: So that you can have an entrance or exit on either side of it.

The WITNESS: That is right, Senator. Those are all right, but some of the others are not.

Q. Well, then, practically, it would be this: You would insist if they are going to have these revolving doors, that they be made with a mechanical contrivance, so that the four doors become just one in which the revolving door is located? A. Yes.

Q. Mr. Morgenthau, you said some thing about prohibiting smoking during working hours in factories. Would you make it a penal offense? A. I would. Now, we have stopped it on the elevated roads. It has been successfully stopped. It was a terrible nuisance, and I spoke to a number of employers, and they are all anxious to stop it, and while one was telling me he did not permit any smoking, one of the men was smoking a cigarette right under his nose.

Q. One of his employees? A. One of his employees. And I think that nine-tenths of the people would be willing to have it stopped during working hours. And if you would arrest a few and punish them, at times, the nuisance would be stopped; it did not take much to stop this smoking on the elevated roads, and in the subways. If you remember a few years ago it was just a habit — people would smoke. It has been stopped, and this can be stopped. I think I have some facts here as to the number of deaths. Now, a large number of the deaths that have occurred in New York are due to — well, to stoves, coal, gas or oil, or to playing with matches. For instance, in the year 1908, there were twenty cases in New York city out of 162; in 1909, there were ten; in 1910, there were thirty-three; and in 1911, so far, there were twelve cases. There have been more fires traceable to matches and cigarettes, and they would not have the matches there if it was not for the cigarettes.

Q. What do you think of employees being required to give up their pipes and cigarettes and tobacco when they enter the premises in the morning? Do you think such regulation could be enforced? A. I do not think it would be necessary. It could be enforced, yes.

Q. It was testified here, that in one factory in Scotland, for instance, where there were three thousand employees, as they entered each morning, they were either searched or required to give up their tobacco, cigars and cigarettes. I also understand in department stores in New York city the employees are all compelled to put their cigars and pipes and cigarettes in lockers before they go to work, and they are searched from time to time?

A. And any one found with it is discharged, that I know of.

Q. Do you think yourself some regulation could be made? A. It could.

Q. And carried out? A. Yes. I found a very wholesome respect for the law in every factory we visited. They treated us — I had a number of gentlemen with me and they treated us with a great deal of respect, and they seemed to have a great desire to conform with the law when we told them it was with respect to fire prevention. There was one lady in one of the factories. She was the forelady. She told us — I think it was a very effective answer — she said. “Well, my own life is at stake.” She thought that was, perhaps, as important as thirty or forty workmen, and she felt bad that there was no sign there “No Smoking.” We found men smoking, and she said the rule was they did not permit smoking.

Q. Would you believe it would be necessary to pass laws specifically to prevent smoking in factories during working hours?

A. You would have to have a law, punishable with fine or imprisonment.

Q. Mr. Morgenthau, are you familiar with the fire towers in the Brunswick building? A. Yes.

Q. Do you want to tell the Commission anything about those towers, and whether they should be used or not? A. Well, I think as Commissioner Dreier suggested, the danger of those fire towers of that kind, would be that they would be congested. They are very good so far as they go, but they are not adequate. You see, if you have ten or twelve people between one floor and the other, and they come from the next floor and crowd into that little fire tower, take that Brunswick fire tower, if they crowd in there, that would congest it, and the others would be standing trying to get in, and could not get in. A building like

the Brunswick building ought to be divided with a fire wall. Of course, the great question in some of these buildings is that it would necessitate the ground floor being divided, and that diminishes the value of the ground floor as a retail store very much. A retailer wants an open space for the entire store.

Miss DREIER: Well, he would not be able to get it, perhaps, anyway if that fire law goes into effect. He would have to be content with smaller space.

The WITNESS: He would have to be.

Mr. ELKUS: Any other questions?

Miss DREIER: I would like to ask some questions. Mr. Morgenthau, do you think there is any way by which we can make these old-style factory buildings really safe for the worker?

The WITNESS: Well as I said, Miss Dreier, you should compel the halls to be semi-fire proof, and the staircases, and if necessary, have fire-escapes both front and rear. Now, we have found that at a number of these places that they would have to vault over a bench or over a machine to get at the fire-escape. You could have lateral fire-escapes, or several fire-escapes, but these vertical fire-escapes — I do not see how you could, with vertical fire-escapes, make a building safe, absolutely safe.

Miss DREIER: Would it be possible to build bridges across from one building to another?

The WITNESS: Yes, you could; you could do that. I suppose in a block like this, if you had the power, you could compel a fireproof tunnel through, so that if they got in it would be like a fire tower laid on the ground, so they could escape.

The CHAIRMAN: Mr. Morgenthau, I understood you to say that you opposed the idea of licensing factories?

The WITNESS: I oppose it?

The CHAIRMAN: Yes.

The WITNESS: I favor it.

The CHAIRMAN: I thought you favored a registration, but opposed the license?

The WITNESS: No, I think it would be very wise to license them. I think the threat of revoking a license will bring about better behavior.

Mr. ELKUS: Anything further you want to suggest?

The WITNESS: No.

(Witness excused.)

DR. S. ADOLPHUS KNOPF, called as a witness and being duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Doctor, where do you live? A. 16 West 95th street.

Q. Are you by profession a doctor of medicine? A. Doctor of medicine.

Q. Of what institution are you a graduate? A. I graduated at Bellevue Hospital Medical College in 1888, and the University of Paris, France, in 1895.

Q. Doctor, have you made a special study of tuberculosis among working people? A. I have, I believe, among all sorts of people.

Q. Will you tell the Commission just what your experience has been? A. I became interested in tuberculosis some twenty-five years ago, when I was interne in the Los Angeles County Hospital in Southern California, where they had more tuberculosis than any other kind of disease. That was the beginning of my tuberculosis career. Then I continued my studies at Belle-

vue and later I went to Paris, took my degree, paying particular attention to the study of tuberculosis. I became interne in the sanitarium at Falkenstein, under Professor Detweiler, and on my return to the United States I did some special tuberculosis work again in Bellevue hospital under Dr. Biggs, and became attending physician to a number of institutions, and I am now Professor of Phthisiotherapy at the New York Post Graduate Medical School Hospital; senior attending physician to the Riverside Hospital School, associate director of tuberculosis clinics of the Health Department, and a number of other institutions where I am in a consulting capacity.

Q. Have you made, Doctor, a study of tuberculosis among employees in factories and manufacturing establishments? A. It is impossible to do tuberculosis work without looking into the cause of it, and statistics have shown that the factory workers and the workers in tenements are more prone to contracting tuberculosis than any other class of workers. And what is still more interesting, a majority of them contract tuberculosis during the term when they should be most useful to the community; that is to say, between the ages of eighteen and thirty-five.

As to the actual causes why the factory workers and the sweatshop worker and the worker in the tenement homes contract tuberculosis more frequently than anybody else, I might cite, perhaps, four cases:

First of all, malnutrition. The people are under-nourished, partly because they have not enough money to buy food, and partly because they do not know how to prepare food.

Second, the lack of air and light in the factory as well as in the home.

Then the congestion in both places. Too many people work in the factory rooms, too many people work in the sweatshop, and the homes of these people are too congested. They lack light and air, the great factors in prevention of tuberculosis in both places.

Then the most important cause is the infection from one to another. It is well known that there is no tuberculosis without

a tuberculosis germ. Now, we have in the factories, a number of tuberculosis workers who carelessly expectorate on the floor. and that sputum has a chance to dry and pulverize. The rest of the fellow workers are very likely to inhale those germs with the dust which is constantly floating in the air, and that bacilli-laden dust causes tuberculosis by inhalation, perhaps the most frequent cause of all. So one infects the other.

Next, of course, is ignorance. These people do not know that it is dangerous to expectorate on the floor. Some of them know and some of them do not know that they have tuberculosis, and some of them who know it keep it quiet. Now, I presume, you wish me to suggest a few remedies.

Q. Yes; I was going to ask you to. I want to ask you a question before we come to remedies. Do you believe that there should be a physical examination of certain industries? A That is one of my remedies.

Q. Then I will let you go ahead. A. My remedies are not only the examination, but the periodical re-examination in all industries. This medical examination should be conducted by experts. It is not easy to recognize tuberculosis except by careful physical examination. I would suggest that such experts be vouched for by either one of our tuberculosis committee associations, or by the board of unpaid advisers, which I believe you suggested, which should be so impartial as never to elect anybody except a man fit to be an expert examiner in tuberculosis.

And then all those actively infected with pulmonary tuberculosis should be excluded from factory work, because there is the source of infecting others. And I will go further. Our law, I believe, does not permit children under sixteen years, or fourteen years, of age to work. I would not only exclude the active tuberculous among adults, but I would exclude the strongly predisposed among the young people. They are the very one to contract tuberculosis when they begin factory work.

Q. What would you do with all these people? A. I would tell them very plainly, you better go the country and become a farmer, if you want to live. We need farmers fully as much as factory workers.

Q. What would you do with the children? A. Our farms are deserted. The children should be put in open-air schools. We

are trying in our Health Department clinics, as much as possible, to visit the families of the adults who come to our dispensaries, and then guide them in the best care of their children. We have a number of open-air schools, but not, by any means, enough.

Q. Where are they located? A. Well, we have some on our boats, on discarded ferryboats. Now, of course, I do not wish to touch on any social question, but all these people must have sufficient pay in order to have sufficient food.

Q. May I interrupt you, Doctor, a moment? You spoke of an unpaid advisory board of medical experts. A. Yes.

Q. Do you mean first that there should be a medical department in the Department of Labor? A. Yes.

Q. Then as a part of that, or attached to that, there should be an unpaid board of medical advisers? A. Yes. That is what I refer to. To secure more light and air, we should have in our factories more dust collectors; and one essential thing which I have seen in the few times I visited factories is the condition of the floors. The floors should be scrubbed; they should be kept clean.

Q. Have you yourself made an inspection of factories? A. Occasionally; not in any official capacity, but for my own information.

Q. What did you find when you inspected the floors? A. I had found most of all, a great many had spit upon them, which is always a source of danger. Not only tuberculosis, but pneumonia and grip is thus propagated.

Now, as to remedies: I would make a law to have a sufficient number of spittoons in every factory and workshop, and these spittoons should have covers, so that the flies could not become carriers of disease, which we all know they are. There is a very good system of keeping a sufficient number of spittoons in good condition in the United States Printing Office, which might serve as a model to any factory.

One of the most important things which I found in some of the factories very much neglected is the towel and lavatory facilities. The laboring men and women have not any chance to wash their hands thoroughly before taking their lunch, and thus they infect their food and become themselves infected. Next,

they have not time enough for their lunch. They should have sufficient time for luncheon and have a few minutes to take a breath of fresh air.

Q. How much time should they have for lunch? A. Well, besides their luncheon, they should at least have ten or fifteen minutes of actual recreation.

And then I believe strongly in a vacation. It is a very easy thing, and not at all expensive, to have a man, who can be a young man, young medical man, come once a week to the factory, and talk to the factory hands on some subject of hygiene, and not forgetting tuberculosis. It is a very easy thing to instruct these people, and they are always willing to listen and to learn.

Q. Why would it be necessary to go to the factory for that purpose; why should not these lectures be held in night schools? A. Well, I hardly need to tell you that the factory man who has worked ten or twelve hours a day, is very likely to be glad to be home and rest a little bit.

Q. When would you have those lectures? Just before going home or in the morning? A. In the lunch hour. While he sits easily digesting his lunch, he is very willing to listen to the talk. I have done that myself, so that I know they are willing to listen to it.

Q. Doctor, have you anything further to suggest? A. No, Mr. Elkus; I believe those are the essentials. There is a great deal can be said on tuberculosis. I do wish to say something, yes. We have not enough hospital facilities in the city to take care of the advanced cases.

Q. Of tuberculosis? A. Of tuberculosis. A very advanced case in a tenement house constitutes a constant center of infection, and as long as we allow these people to remain in the tenement houses, living and infecting their fellow men, so long we will not be able to cope with tuberculosis problems. We need more hospital facilities.

Q. I want to ask you a word about the extent of tuberculosis. Will you tell us something about that; how widespread it is, how dangerous it is? A. I believe it is the most widespread of all diseases. It is the most prevalent of all the chronic infectious diseases. The estimate in the United States, I think, is that 200,000 a year die of tuberculosis.

Q. How many cases are there supposed to be in the United States? A. Well, that is very hard to tell. We cannot tell by the mortality statistics, because a great many cities do not report their cases. We have here in New York a law which empowers the Health Department to remove every case which is considered a center of infection, but we have not hospital facilities enough to give these patients accommodations. I have here a little report which one of my young assistants made on the conditions of tuberculosis.

By Miss DREIER:

Q. Doctor, did you make an investigation of any bakers, the physical condition of bakers? A. No, except such of the bakers who come to our dispensaries. I have not examined them at large.

Q. Can you give us any idea — A. I know that a great many bakers, and a great many waiters are tuberculous, because I see a good many of them in the hospital and dispensary service, but I could not give the number; and I know that they have worked up to the last day, until they were sometimes taken away from their shop.

Q. That would be dangerous to the health of those who eat the food? A. Well, I want to be perfectly frank. It is not very dangerous, but it is very unappetizing, because the heat in the oven is sufficiently high to kill the bacilli. But the handling afterwards of the bread is always dangerous, if they should handle it with hands which have been used for handling sputum. Of course, I believe there is some danger.

Q. What do you think of the hours of work as affecting tuberculosis in both men and women? A. Overwork and malnutrition are the main causes of tuberculosis.

Q. What do you call overwork? A. A man works so hard that he is very tired. Some men can work ten or twelve hours without being very tired, and others can only work eight hours. It is very hard to say every man ought only to work so many hours. It depends upon the individual constitution.

Q. Would you suggest any limitation of hours at all in any of the industries? A. Of course, we all like eight hours work,

eight hours sleep and eight hours recreation, but that is a matter of individuality. If I could generalize that, I would do that.

JOHN B. ANDREWS, called as a witness and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. What is your full name, Doctor? A. John B. Andrews.

Q. Where do you live? A. 143 East 21st street.

Q. What is your profession, Doctor? A. I am the secretary of the American Association for Labor Legislation.

Q. How long have you been the secretary of the American Association for Labor Legislation? A. About three years.

Q. Have you made an investigation of the prevalence and extent of occupational diseases, occupational poisoning? A. Yes; with special reference with two of the occupational poisonings.

Q. Tell us just what you did with reference to that; what investigations you made and what your experience has been. A. One is the investigation of phosphorous poisoning, which is particularly in the match industry. We find there, that there is the most loathsome occupational disease, which the workers call "fossy-jaw"—phosphorous jaw.

Q. Where are the match factories located? A. You mean particularly in this State?

Q. Yes, in this State. A. In this State the match factories which I know of are located in Oswego, New York, and Evergreen, Long Island.

Q. Now go on and tell us, Doctor, about this phosphorous jaw. A. In the making of matches, the paste into which the splint is dipped, contains a dozen different ingredients—the dangerous one being poisonous phosphorous. The work people mix up the paste, and the splints are dipped into the paste, and as the still wet matches are packed in boxes, they breathe the fumes of the phosphorous, and they are continually getting particles of phos-

phorous on their fingers where it is transferred to their mouths, often accidentally, and this sets up a decay of the teeth and the jawbone until the teeth drop out, the jawbone decays and they have to have, frequently, an operation which cuts out their jaws.

Q. Are there men and women employed in this work? A. Yes, sir.

Q. And children? A. Men, women and children.

Q. Have you seen many cases yourself of this phosphorous jaw? A. Yes.

Q. Now, what other occupational diseases have you investigated? A. In the State of New York I have investigated sixty fatal cases of lead poisoning covering the years 1909 and 1910.

Q. Where were these cases, where were they located? A. About one-half of them were located in the city of New York and another half in other parts of the State.

Q. Were they men or women? A. Only one woman.

Q. And the others men? A. Yes.

Q. What was the average age — give us some particulars about these sixty cases of lead poisoning, what kind of business or manufactures they were employed in, what was the cause of the poisoning? A. Thirty-seven of the sixty were registered as painters; eight were registered as laborers, four were printers and two were merchants, which meant that they were really mixing the white lead and selling it, and there was one each from the machinists and moulders, smelters, tinsmiths, salesmen, brush drawers, glaziers, porters and coopers. That is the record made by the attending physicians. It happened, however, that in exactly three-fourths of the sixty cases, the workmen were either engaged in the manufacture of lead paint, or else in the use of white lead in some form. Three of these workers were traced to one small smelting and refining establishment. However, the physicians had reported only one of them as a smelter; the other two were pretty effectually disguised as laborers on the death certificate.

Q. Now, describe what lead poisoning is, and the effect of it — what is lead poisoning? A. Lead poisoning is caused particularly

by the breathing of dusts of lead. The most dangerous operations are those, for instance, of painting the interior of railway coaches, where in order to get a good polish they sandpaper the first coat of paint before putting on the second. That fills the confined space with particles of white lead which are breathed by the workers. The most apparent evidences of lead poisoning to the layman are a blue line on the gums, and frequently a paralysis of the wrists, which they call wrist drop. Sixty of these men were reported as having died from lead poisoning in two years. That, of course, does not mean that there are only sixty deaths necessarily, because our system of reporting is still far from perfect.

Q. Now, Dr. Andrews, you have given us two kinds of occupational poisonings — lead poisoning and phosphorous poisoning. Are there many others? A. Yes, sir.

Q. Will you name just a few of them — in New York State, we must limit ourselves to that. A. Yes. There is some mercury poisoning, and some arsenic poisoning; and then there are a great many occupational poisonings from various alloys. For instance, in the manufacture of certain brass fixtures there is poisoning, some of which may be due to lead and some of it to other things in the work. There is a list of occupational poisonings prepared by a committee of experts, and they are thirty-three in number, with a description of the industries where these poisons are used, the method of the entrance of the poison into the human body and the effect upon the system and the various preventive measures that should be used.

Q. Now, Mr. Andrews, you have told us about these conditions which you have discovered and inspected. What do you think can be done to prevent or check them? A. There is only one thing that will prevent the "fossy-jaw" in the manufacture of matches, and that is the absolute prohibition of the use of that poison. Practically all of the civilized countries of the world have absolutely prohibited the use of that poison.

Q. Except the United States? A. Except the United States.

Q. What do they use instead of phosphorous? A. There are several substitutes. Probably the most available is sulphide of phosphorous, which is one of the salts of phosphorous, but is not poisonous.

Q. Does that add to the cost of manufacturing matches? A. Very little. The match manufacturer from time to time has stated that it might increase the expense from three to five per cent.

Q. Then you would be in favor of legislation which would absolutely prohibit the use of phosphorous in making matches or any other work? A. In the manufacture of matches; yes.

Q. Only in the manufacture of matches? Would that be sufficient? Would you describe it sufficiently by just that prohibition? Would that be a sufficient prohibition, to say that no phosphorous should be used in the manufacture of matches? A. That depends upon whether we are to approach this problem from the standpoint of State legislation or National legislation.

Q. Well, State legislation we are talking about now. A. That is clearly, I think, within the power of the State government to issue such a sweeping prohibition.

Q. Take up the case of lead poisoning, and some of this other poisoning which you have told us about, occupational diseases; what would you recommend in reference to that? A. There are certain industries where lead is used that it would be possible to use harmless substitutes. There are others where, so far as I know, it is not possible, now. Wherever possible to use harmless substitutes, and they are readily available, I think it is perfectly clear that we should do that, and where it is not possible, we should use all of the modern sanitary precautions——

Q. Such as blowers—— A. Exhaust pipes and that sort of thing.

Q. Doctor, are you in favor of the establishment of a medical bureau as a part of the Labor Department of New York State? A. Yes, certainly.

Q. Are you in favor, as a part of that bureau, of an unpaid medical advisory board? A. Yes.

Q. You think both of these are desirable? A. Yes, sir.

Q. What should be done, in your opinion, to call attention of both employer and employee to dangerous trades and occupations? A. I think the operation of the bill which was passed by the last Legislature in this State will serve to call the attention of the physicians to some of them which are now reported under the new

law. That is, phosphorous poisoning, lead poisoning, arsenic poisoning, mercury poisoning, compressed air illness, and anthrax, will be called to the attention of physicians throughout the whole State. Then I think we should have a special clinic or hospital for the study and prevention of occupational diseases.

By Miss DREIER:

Q. Are there any data now available to prohibit the use of phosphorous? A. Oh, yes, certainly.

Q. You have enough? A. Yes.

Q. To make some kind of laws regarding lead poisoning? A. Yes; there we could fortunately follow some of the European countries, where they have had the best scientists in the countries of the old world working out these various problems, and in this country we have had some very fine investigations by Dr. Alice Hamilton, to make it possible to prohibit the use of lead in interior decorations.

By Senator HAMILTON:

Q. How important is the match industry in this State — about how many workmen are employed? A. There are two factories in this State. One employs probably 125 to 150 employees, and the other I think about 400.

Q. These substitutes for phosphorous will contain phosphorous in some other form, will they not? In other words, isn't it almost necessary to use phosphorous to get a good match? A. No. Several of the match companies have recently been making matches without the poisonous phosphorous, matches which strike on any ordinary surface, and they are apparently satisfactory. They are selling them. But the difficulty is it costs just a little more to make them in that way, and until we have a uniform prohibition of the use of that poison, no manufacturer will put his business on a non-poisonous basis.

Q. It would hardly be fair to prohibit it in the State of New York alone? A. It would be much better if it could be made a national prohibition. If that cannot be done without loss of time, then it will be necessary to do it through State action, I think.

Mr. ELKUS: You could prohibit not only the manufacture but the sale of such matches?

The WITNESS: There is now a bill before Congress which would put a prohibitive tax upon poisonous phosphorous matches through the internal revenue.

Mr. ELKUS: That is the way Congress would reach it.

Senator HAMILTON: I doubt if you could prohibit the sale of matches made in other States.

Mr. ELKUS: You could on the ground they are poisonous.

By Mr. ELKUS:

Q. Is the match itself poisonous? A. They are very poisonous. Little children who pick up matches and suck off the heads of a few of them die. There is enough poison in a five-cent box of matches to kill twenty-five men.

Q. What is that — enough poison in a five-cent box of matches to kill twenty-five men? A. Yes.

Q. By sucking it off? A. Yes.

Miss DREIER: Have you got any facts as to children eating these matches?

The WITNESS: I have a long exhaustive record of that sort.

Q. What do you mean by long, exhaustive list? Have you got concrete cases? A. I have many I would be glad to submit to the Commission.

Q. You mean children of the city of New York or the State of New York who had eaten the matches and died as the result? A. Yes.

Q. About how many cases were there in the last year? A. I could not say without looking it up.

Q. I thought you might tell me from recollection about how many? A. It would be easy to furnish several concrete cases.

Q. I wish you would send them to me before the end of next week. A. The match also has another danger not so commonly known, and that is that it is used also in a criminal way; that it is used for suicidal purposes, and unfortunately there is a belief that it aids criminal abortion, so that many of the notices we see in the newspapers under the head of suicides may have been caused in another way. It is a very cheap poison which can be bought at any grocery store, and it is in practically every American home without the label "poison."

FRANK R. CHAMBERS, called as a witness and being duly sworn, testifies as follows:

Examination by Mr. ELKUS:

Q. With what firm or corporation are you connected? A. Rogers, Peet & Company.

Q. What office do you hold with them? A. I am a partner in the firm.

Q. You are one of the partners? A. Yes, sir.

Q. Are you connected with the Merchants' Association of the City of New York? A. Yes; as Chairman of their insurance committee, fire insurance.

Q. Mr. Chambers, as Chairman of that committee, fire insurance committee, you have been interested, of course, in the study of fire prevention and saving loss from fire? A. Yes, sir.

Q. And you also are familiar with the manufacturing conditions in the city of New York and in the State, are you not? A. In a general way.

Q. The question has come up here as to whether or not manufacturers should be registered or licensed; what is your opinion with reference to that? A. I should regard it as unnecessary and as imposing a most useless burden upon the municipality in keeping a record of all the petty manufacturing, because when you undertake to define manufacturing, it is every operation involving more than one person.

Q. Suppose we define manufacturing for the purpose of licensing, as those who employ say more than twenty or twenty-five persons;

would you be in favor of some system by which the State or some authority would know when a place was being occupied for manufacturing purposes? A. I do not think it is necessary; I would not be in favor of it because I think it is unnecessary.

Q. At the present time the State officials have told us that they do not know where a factory of any kind or size is located until they stumble on it by accident, and that is often the reason why no inspection is made of the factory. What would you suggest to remedy that condition? A. For fire protection, the Sullivan-Hoey bill provides the means of constant and regular inspection of all manufacturing places.

Q. Yes, it requires that, but how are they going to inspect if they don't know where they are? A. They intend to inspect every building in the city, practically.

Q. In time, yes, if they ever get to it. A. I do not think there is any difficulty about that.

Q. You do not? A. No. The Fire Department of New York City knows what practically is the occupation of every building in the city.

Q. It has been testified to here by both Fire Department people and by the Labor Department people that frequently they do not find out the existence of manufacturing establishments for years, although they are both supposed to inspect every building in the city; that by the time they get through inspecting the buildings, so much time elapses before they get around to it again that the occupation of the people who occupy it change. A. Well, this new Fire Prevention Bureau in the city is supposed to take care of that.

Q. How about the rest of the State? A. I do not know that registration would make any difference as a practical matter.

Q. You are familiar with the provisions of the Hoey fire bill, are you? A. Yes, sir.

Q. Are they satisfactory to the merchants? A. With one exception, as to the composition of the Board of Survey. We think that the property owners should have the nomination of one member of the Board of Survey, whereas practically all members of that board are now designated by the municipal authority. In the final draft of the charter, which was offered at the last Legislature but not passed, that was corrected, and we think that in that regard the bill should be amended.

Q. Mr. Chambers, you are aware, are you not, of the duplication of inspection which takes place in this city and elsewhere of factories by the different departments, the Labor Department, the Health Department, the Building Department, the Tenement House Department and the Fire Department? A. Yes.

Q. I take it, of course, that you agree that ought to be remedied, if it can be remedied? Have you anything to suggest to the Commission as to remedying that? A. Except this, that an ideal system would be one Department of Inspection, but that I do not consider practical.

Q. You do not consider a Bureau of Inspection practicable? A. A Bureau of Inspection to take the place of all the present inspections, I do not. Under a corporation or a firm management, you could concentrate that, but under a municipality I do not think it is practical.

Q. But you think that any business corporation would, of course, do it that way? A. Yes.

Q. That would work out practically? A. Undoubtedly.

Q. But the trouble is with the municipality or the State there would be too much interference in politics, or what? A. Not politics; no; but it is too much division of authority. You are administering a department and you want your information to come to you first hand; you don't want it filtered through somebody else.

Q. But a corporation or a business firm it would not work the same way? A. No.

Q. It is the ideal method? A. Yes.

Q. Is there anything further you would like to advise the Commission with reference to? A. I may say, in regard to what I heard Dr. Andrews say, this matter of the manufacture of matches.

Q. Yes, sir. A. The sale of phosphorous matches, or matches that will ignite other than on the box, is a very important one in connection with this whole question of fire prevention.

Q. Yes. A. And my understanding is that some of the States, notably Pennsylvania, have forbidden the sale of any matches that could be ignited other than by contact with the material of the box. If there is a way to put that into our State law, it would be a tremendous step towards safety, and assistance in fire prevention.

Q. In other words, you would recommend that no matches be sold except what are called safety matches? A. Yes.

By Senator HAMILTON:

Q. Do you know that that is the law in Pennsylvania? A. I do not know; no. I have seen somebody's statement that such a law was passed and about to go into operation.

Mr. ELKUS: It is the law in European states.

Senator HAMILTON: Yes, I think that is true, and the matches are the worst I ever saw.

The WITNESS: We have plenty of matches that will strike on the box.

By Mr. ELKUS:

Q. Would you be in favor of prohibiting smoking in manufacturing places during working hours? A. No, because it would not be obeyed.

Q. If it was made a statutory offense to smoke? A. I do not believe you can correct habits of that kind. The fire insurance people have that somewhat in hand; they penalize with the high insurance premium, or a higher insurance premium, places where smoking is allowed. There are other ways to accomplish protection other than to change men's habits.

Miss DREIER: I would like to know what your opinion is about the fire wall which has been advocated as a method of fire-escape; the best plan of fire-escape?

The WITNESS: I think it is very admirable. Far better than outside fire-escapes.

Witness excused.

JOHN W. SCOTT, a witness being first duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. What is your business? A. Sugar refining.

Q. And what company are you connected with? A. Arbuckle Bros.

Q. Where is that located? A. Brooklyn.

Q. And what is your position with them? A. Superintendent.

Q. How long have you been superintendent of the Arbuckle Sugar Works? A. Two years.

Q. How many men are there under you in the employ of the Arbuckles? A. About one thousand.

Q. Where is your factory located in Brooklyn? A. Between Pearl and Jay streets on the river front, — I beg pardon — between Adams and Jay street on the river front.

Q. And the business is the refining of sugar? A. Refining sugar.

Q. Any particular kind of sugar? A. Any kind of raw sugar.

Q. How many of the one thousand people employed in your concern are men, and how many women, and how many children? A. No women and no children. We have possibly a half a dozen boys about 18 years of age.

Q. Will you describe to the Commission the process of refining sugar generally? A. The sugar is received in various kinds of packages, mostly in bags, and it is first put through a preliminary process called a washing, which is simply mixing the sugar up with water and putting it through what in the laundry business is known as a hydro-extractor.

Q. Before you go any further; let us take up first, the sugar comes in bags? A. Yes.

Q. That is raw sugar? A. Raw sugar.

Q. Either from some foreign country or — A. Most of it from Cuba, about 80 per cent of it comes from Cuba.

Q. When it comes it is in a dirty condition, is it? A. More or less.

Q. That is taken to a room called the wash room? A. It is a separate department, it is several rooms.

Q. Now, how is the sugar cleansed, by extreme heat, by water, by steam or what? A. Now we come into another part of the process. We separate it and heat it and filter it, and the filtering is done first through a mechanical filter and later on through a char filter, which is partly a chemical filter.

Q. Now in the first process of cleaning it, what is done? A. Simply the separation of the material that happens to strike the crystal that surrounds the crystal.

Q. How is that done? A. That is done by putting it into the hydro-extractor and washing with water.

Q. And is that done in a room that has a very high degree of temperature? A. No, the water is at normal temperature and the sugar at the temperature that it is received.

Q. That is the first process? A. That is the first process.

Q. Is that done by hand? A. The dumping is done by hand. The mixing is done by machinery. The discharging of the hydro-extractor is also done by hand.

Q. What is the next step? A. Separate it.

Q. That is done by extreme heat? A. That is a wrong term. Dissolving it.

Q. That is done by extreme heat? A. Not extreme.

Q. What heat? A. Heated up so it would kill any germs.

Q. In the room? A. About 200 degrees.

Q. Is that called the refining room where that is done? A. It is usually spoken of as the separating room or the separating pan house.

Q. What is the degree of the temperature in that room? A. The air?

Q. Yes. A. Normal.

Q. 72 or 73 degrees? A. Depending on the outside atmosphere. Sometimes they have to shut all the doors and windows to prevent the men from getting cold.

Q. Now, what is done next? A. The next step is heating up and adding of the dessicating material and putting through the mechanical apparatus, something on the principle of the maid in the morning throwing the egg into the coffee, to clear up the coffee. Our solution is somewhat in the same way, only of a different nature.

Q. And it is done in a room where the temperature is normal?
A. The room is always open to the atmosphere, so far as the windows being opened is concerned, but the temperature in that room rises high, because the vats in which it is treated give off heat.

Q. What is the temperature of that room? A. I have known it to rise there as high as 110, but that would be a very exceptional case. Normally it is about 80.

Q. What is the next process? A. The next process is running it through the mechanical filters.

Q. Just tell us about that, what is done there? A. Simply the liquor percolates through the filter.

Q. What do the men have to do with that? A. The men have to prepare those filters. In our place it is a case of taking those bags and washing them, through which we filter.

Q. And that is done at a high temperature? A. Oh, no; that is the water. That is at a temperature sufficiently cool to allow the man to plunge his arm in to the elbow.

Q. How hot are these rooms? A. I should say 70 or 80.

Q. How about steam? A. There is no steam in that room, except the vapor giving off from the moving liquor.

Q. And what is the next process? A. The next process is running through the char filters in which it descends through a volume of char.

Q. How are your men in this filtration process room dressed?
A. It is a very sloppy job; on that account they are usually dressed simply in overalls.

Q. Is it not a fact that most of them go around barefoot, without any clothes on? A. Sometimes they go around barefoot. We do not allow them off the floor for fear they might get injured; we would not allow them to walk around through the other floors.

Q. Is it not a fact that the men work absolutely nude? A. No, sir. I would be glad to take you over and you could see that that is not so. You would hardly have to take your coat off.

Q. Is it not a fact that in this room where the filtration process goes on that the heat is so intense that the men work not only barefooted, but absolutely without any clothes? A. No, sir.

Q. And they are carried out from time to time? A. No, sir. I believe we had some female factory inspectors over there who

came in without any preliminary notice. I remember one particular case when I was afraid that the conditions might be unpleasant, and I asked to be allowed to send word to the department, but they would not allow it; they insisted on going up right then.

Q. What condition would be unpleasant? A. For the sake of comfort, men will only have on overalls. Some would not wear shirts.

Q. That is what I was telling you. A. But not all of them. Understand, that is, the man simply does that for his own comfort, because the business is so sloppy; not on account of the temperature.

Q. He does it because of the conditions that exist? A. Not from the temperature.

Q. Have you not ever seen them without any clothes? A. Yes, frequently. Almost every time they are through with the operation of filtering, they take all their clothes off and jump into a bath tub, take a bath and dress again.

Q. They do not jump into that water? A. No, they have a separate bath tub for the purpose. We provide them with a bath tub.

Q. You mean that they perspire so freely, they get so heated up that they take a bath? A. No. In every filter there must be something like 3,000 pounds of actual muddy material that has to be gotten rid of. And in dumping this muddy material out of the bags they get slopped up with it. It is sloppy.

Q. What is the ventilation of this filtration part? A. Not anything more than the windows being opened; some of the places have fans.

Q. What? A. In some factories they require fans; in our factory they do not.

Q. You do not have any artificial ventilation? A. It is not necessary in our case.

Q. So on a winter's day the cold air blows in from the open windows on these men? A. In weather like this, they only have the windows open on the lee side of the house.

Q. And wherever they have them open the cold air comes in on the men who are working in the heat? A. No, as I say they

always open them on the lee side; that is left entirely to the men themselves.

Q. I understand that. You do not interfere with the men whether they take their clothes off or not. We want you to point out what are the exact conditions and if there is any remedy?

A. The trouble is not with the temperature; the trouble is due to the sloppiness of the job.

Q. The occupation? A. Yes.

Q. You mean to say it is such a sloppy job that it cannot be improved? A. No. You would not expect a woman at the wash tub to wear a silk dress, would you, hardly. We have the same condition exactly.

Q. And you would not expect a woman at the wash tub to be naked, would you? A. No, but at times she might find it very comfortable indeed to be naked. They do not always go so. Our men are very seldom naked.

Q. In this room which is 110 degrees? A. I did not say it was 110 degrees in that room.

Q. In some room? A. I said sometimes it goes up to 110 degrees in another room.

Q. What is the name of the other room? A. The other room is a blow house.

Q. Any ventilation in that room? A. A beautiful ventilator.

Q. They have plenty of fresh air? A. Yes.

Q. The windows are open there? A. The windows on both sides; they can open them on either side or both.

Q. Now come back to this filtration room. Are the men ever naked in that room? A. No.

Q. Do you know of a case of fainting in that room? A. I think that in my experience there I have never — in fact, I have not had a man overheated, but one man fatally in the last five years.

Q. One man fatally? A. Yes. I think I had one case of fatal overheating, not in that room; it was another room entirely. Not that room; it was the boiler room.

Q. What room? A. The boiler room.

Q. The fire room, the boiler room? A. Yes.

Q. I am not referring alone to the men who die because they faint with the heat; I am referring to men who are carried out alive? A. We do not have any of those cases. We never have those cases; they never have those cases in factories where they do not allow men to drink beer.

Q. Do you mean to say that comes from beer drinking? A. Undoubtedly. I am a beer drinker myself, but I must say that undoubtedly all the cases of overheating that we have had in the sugar refining business, I have been able to trace right down to beer.

Q. That is to say, the men drink beer and work in this room, and if they did, they would be overcome and have to be carried out? A. Yes.

Q. And in those factories where they do not prohibit the drinking of beer, they have frequent cases of fainting? A. No, the men you will always find know if they are going to be troubled with heat and they report in time so as to allow them to go out into the air. They are never taken off quickly.

Q. Now, in this charcoal room, is there a great deal of dust there? A. No, not such a tremendous lot. We have fans that pick up the dust there.

Q. Where are the fans located? A. Right in connection with our elevators, where they elevate the char. That is too valuable to let it blow around.

Q. There is some dust? A. Yes.

Q. Charcoal dust? A. Yes.

Q. What wages do you pay your men? A. I should say from an average of \$12 a week up. That is, \$12 would be about the lowest, and that possibly will average about \$14 to \$15.

Q. When the factory inspectors came there that was on an ordinary working day? A. They always come on ordinary working days.

Q. And they wanted to inspect the building and the men just as they were working there, as they do ordinarily? A. Yes. Men I have never thrown anything in the way of. Women I have.

Q. You were rather afraid that the women might see something to shock them if they went in unannounced? A. Yes, because I know of such instances happening.

Q. For instance, where the men were without clothes? A. No, where they were taking a bath at the time.

Q. Did they take it right out in the open? A. The bath in this case happens to be about the center of the room, near the head of the stairway. It is not the bath room in connection with the dressing room, it is a bath especially for these men.

Q. A bath room right in the room where the manufacturing or refining of the sugar is going on? A. Right where the washing of these bags is going on; not where the refining of the sugar is going on.

Q. The washing of the bags is part of the process? A. No, sir.

Q. Is it not? A. Oh, no, that is not part of the process of refining sugar. What has washing bags got to do with refining sugar?

Q. You get the sugar out of the bag? A. That is not part of the refining process. The refining process is entirely separate. I suppose we could throw the bags away and get new bags, if it was not too expensive.

Q. This sugar that is taken out of these bags is the sugar that is afterwards refined? A. The sugar that goes through those bags is the sugar. But that is in a closed tank, that is a tank that is closed in.

By Miss DREIER:

Q. I happened to be in your factory, and no bath was pointed out to us at all. A. No, you did not see the bath.

Q. We asked for them, and I think the physician who was with me said he wanted to get the general condition, and they did not say anything about a bath. A. I should have shown you seven or eight if I had been along. If you had asked me I certainly would have shown them to you. I have several shower baths.

Q. They were not pointed out to us. A. That is unfortunate, but if you had inquired they would have been shown to you.

By Mr. ELKUS:

Q. How about the toilets? A. The toilets are in the cellar, on the second, third, fifth, seventh and ninth floors.

Q. Not on every floor? A. No, about every alternate floor.

Q. Are they clean or not? A. Cleaned daily.

By Miss DREIER:

Q. Do you consider your toilet facilities adequate or sanitary?
A. Yes, sir, both.

Q. When we were in that room where they were washing these bags it was 92 degrees. A. Yes. Where did you find it 92 degrees, may I ask? We have no thermometer in there.

Q. We had a thermometer, which we carried with us, a bulb thermometer, and the temperature of the water by test was 130 degrees.
A. The water where?

Q. Where the men were washing the bags. A. Yes, I would rather have had it about 180.

Q. It is a matter of the point of view, I suppose? A. No, it is a matter of sanitation.

Q. What I would like to know is whether this cleaning of the bags has to be done by men or cannot that be done by machinery? Why could not you do that by machinery? A. I would be glad to do it by machinery if you would point out a method.

Q. Is not there any method that could be arranged or invented?
A. No, if we could find a method we would be very glad to dispense with so much labor.

Q. How long do you work your men? A. Twelve hours daily, with an hour for dinner.

Q. And at night? A. Twelve and twelve is twenty-four. We work all the time.

Q. Work all the time? A. We work all the time.

By Mr. ELKUS:

Q. Do you have men working seven days in the week? A. No, very few. There may be a few engineers and some firemen. Firemen, by the way, have only eight hour shifts, and some of those work seven days in the week, and the engineers, some of them work — well, not seven days, but six and one-half days. That is one week they will work seven days and one week six days.

Q. The ordinary workmen work how long? A. The ordinary workman works about six and one-fourth days, — six and one-half days. One week he works six days and the other week he works seven days.

Q. How do you fill out the remaining days? A. We are not working the other part of the time. In other words, we do not do any work from Sunday morning until Sunday at midnight.

Q. You stop Sunday morning except the engines, I suppose? A. The engines also stop, but some men come in to make the necessary repairs.

Mr. ELKUS: Anything further?

By Miss DREIER:

Q. Are all your workers foreigners or Americans? A. My workmen are nearly all foreigners.

Q. Can you tell the length of time you keep them in your employ? A. Some of them have been in our employ since the factory was built. Some of them change possibly—I suppose in some departments they will only stay two or three days, two or three hours, sometimes, and they have to be replaced by others.

By Mr. ELKUS:

Q. Why is that? A. They do not like the work.

Q. Too hard? A. It is pretty hard work.

Q. And are they exhausted? A. Oh, no. I am speaking in general when I say we do not have any cases of exhaustion at all. They never do in a sugar factory where they do not allow beer. If you do allow beer you will have cases of exhaustion continually.

Witness excused.

Mrs. IRENE OSGOOD ANDREWS, a witness being duly sworn,
testified as follows:

Examination by Mr. ELKUS:

Q. Mrs. Andrews, what is your occupation? A. I am Assistant Secretary of the American Association for Labor Legislation.

Q. And, Mrs. Andrews, are you also engaged in editorial work? A. Largely that.

Q. Of what kind? A. The Labor Legislation of the different States of the United States and factory inspection,—general labor laws.

Q. Have you made a study of factory inspection? A. To a certain extent, yes.

Q. And are you familiar with the methods used by the Labor Department of this State? A. Fairly so, yes.

Q. In your opinion should the method of inspection be changed or altered so as to improve it, and if so, how? A. The method of inspection?

Q. Yes, the manner of inspection? A. Under the existing labor laws it does not seem to me that the manner of inspection can be changed to any extent. As the laws are drafted, it leaves a very indefinite field for an inspector. The entire discretion as to what actually shall be done is left to him and it places upon a man who has no training for that work a task which he is really not fit to do.

Q. What would you suggest could be done to improve the inspection? A. I should suggest remodeling, so to speak of the Labor Law, so that the law should conform more closely with the industries which it would be supposed to regulate.

Q. In what way? A. I should think that would be done by the employment of experts by the Bureau of Labor,—experts who are familiar with conditions to be regulated,—either official experts or volunteer work. I think the point there is that the law should conform to the industry which it is supposed to govern.

Q. You would not favor, Mrs. Andrews, the licensing of manufacturing establishments? A. I think the licensing is rather a difficult problem. I am in favor of the registering of all factories.

Q. What do you suggest should be done to avoid the duplication of inspection and the duplication of authority over manufacturing establishments, as it now exists? A. I have not thought much along that line. That could be done by a division of the authorities assigning to each department part of the work. I have not studied this subject on the question of duplication.

Q. Are you in favor of the establishment of a Medical Bureau attached to the Labor Department? A. I think that would be very advisable, as well as a Bureau of Safety, two departments.

Q. Do you think it would be advisable to have an unpaid medical advisory board? A. Yes.

Q. Have you anything else to suggest to the Commission, Mrs. Andrews, that you desire to speak about? A. Nothing that I can think of.

Mr. ELKUS: We are very much obliged to you.

Witness excused.

OWEN R. LOVEJOY, a witness being first duly sworn, testifies as follows:

Examination by Mr. ELKUS:

Q. And what is your profession and occupation? A. I am General Secretary of the National Child Labor Committee.

Q. And what is the function of the National Child Labor Committee? A. The purpose of the committee is to investigate conditions of working children throughout the country; to propose remedial legislation where needed, and to assist in developing public interest, and to aid in the better enforcement of such laws.

Q. Your work extends over all the States of the Union? A. Yes, sir, it does.

Q. And you are familiar, or course, with the laws of this State with reference to the employment of child labor in a general way? A. Generally so, yes, sir.

Q. What have you to suggest, if anything, with reference to the employment of child labor in this State; any change or modification of the law? A. There are two or three points that seem to me are of particular importance on that point. The general child labor law of this State is considered one of the best in this country, as to the regulation of hours and the prohibition from dangerous occupation and the prohibition of night work and Sunday work, but there are two or three points of extreme weakness in the law which need to be remedied. One is the necessity for bringing into more close conformity the conditions applying to mercantile establishments and to manufacturing establishments. For example, the

hours of labor for children under sixteen years in factories, are limited to eight hours per day, and thus defined, between eight in the morning and five in the evening, — the hours in mercantile establishments are nine, with no limitation as to the time of beginning and closing, except a very loose one, which makes it impossible for rigid enforcement.

If it is important for a child to work no more than eight hours a day in a factory, it is equally important, in many instances more important, that the hours should have some limit in mercantile establishments, where the work is harder and the pay is less and the conditions are frequently more objectionable.

In the second place, the law of this State, in my judgment, should be amended so as to more carefully regulate the employment of women and children, — especially of children in cannery sheds — the sheds that are attached to fruit and vegetable canning establishments. That is a very important industry in this State, and it is rapidly increasing here and elsewhere. There has been a general exemption of this industry in most of the States where it is important, on the ground that fruit and vegetable canneries constitute a case of agricultural employment, where, as a matter of fact, they are manufacturing. The cannery shed was exempted by the judgment of Attorney-General Julius Mayer about five or six years ago, as not being a manufacturing establishment, but being in its nature agricultural. Therefore, it is not at present under the jurisdiction of the State Department of Labor, and there is no law, aside from the Compulsory School Law, when the schools are in session, to forbid the employment of children of any age and for any number of hours in cannery sheds. Investigations have been conducted in this State by the New York Child Labor Committee, and there have been investigations by the Russell Sage Foundation, revealing great abuse in the canneries, and the reports of this investigation by the Russell Sage Foundation were printed but never published. Perhaps the Commission could get a copy by applying to the Sage Foundation.

Q. We are very glad to have you tell us about it. A. In these cannery sheds, and also in the canneries, we have records of the employment of women for from 70 to 90 hours a week, during rush seasons, and children are also employed excessive hours,

The next point of weakness in the New York law is that relating to the street trades. Our street trade law in this State is defective, both as to its contents and as to the methods of enforcement. The age limit for boys in street trades should be raised from 10 to 12 years, in my judgment, to 14 years, if possible, and the age for girls in street trades should be raised from 16 to 18, and those who are employed should be employed under a strict license system. In Boston there is a supervisor of licensed minors, who has charge of the issuing of these certificates, and he has supervision over them under the license system. Here we have no one in charge of the street trades; they have been generally neglected in this country.

Q. What do they do with them? A. The law has recently been passed in London—by the London Common Council, following closely the recommendations of the State Commission on Poor Laws. This Commission advised that the age limit for all street trades should be fixed at 18 years for females and 17 years for males, on the ground that the street trades offer the greatest menace to health and morals and education, and afford the greatest opportunity for the development of disease and for future industrial uselessness.

Q. That would cut out the newsboy, would it not? A. It would cut out the young newsboys, and it would regulate the employment of the older newsboys within reasonable hours. The investigations that this committee has conducted in this and other States show that the newsboy is really not the support of his widowed mother, as is popularly supposed to be, but that he and other street traders are, a very great percentage of them, gamblers and participants in other vices that boys ought to be shielded from.

Q. What you mean is that they spend their money in gambling?

A. In gambling, cigarette smoking, liquor drinking and other vices.

Q. These boys are young boys? A. Many of them are young boys.

Q. And after school is out they use this as a means of earning money for themselves? A. The greater percentage of them do. And the report published by the Federal government recently on the relation between the employment of children and delinquency shows that the newsboy heads the list of nineteen occupations as furnishing the largest number of delinquents among those investigated.

Q. What else have you? A. The general suggestion on that one point would be only this: That there should be no exemption in the Labor Law of New York State for fruit and vegetable canneries. It is becoming an industry of tremendous importance throughout the country, and so far practically everywhere it has been able to secure exemption, but recent laws have been passed in Oregon and Illinois. There has been a ruling, a decision of the Supreme Court, that a ten-hour day for all manufacturing is constitutional. That is the case of *Kirknell vs. Oregon*, that is the former case and the so-called Ten Hour Law case in Illinois.

Q. Is there anything further that you would like to advise the Commission with reference to? A. There are two or three other questions, Mr. Elkus.

Q. Go on. A. You asked, should there be a periodical examination of children up to 18 years of age.

Q. Yes. A. I should say yes. A very different kind of examination from that which has been supplied thus far in the State. I should submit for consideration the recommendation that every child in every school, either public or private, should be subject to a physical examination, a thorough examination; that the results of that examination should be tabulated; that the child should be re-examined every year, at least once a year, during his school period, for the purpose of recording any absences from school, any treatment of the teeth, ears, or other organs, or any surgical operations, recording also the development of the child, his weight and height, and that should be done every year during the child's school period, so that when the child comes to sixteen years of age, fourteen, or at whatever time he leaves school to go to work, the Board of Education, by means of this system, can follow the child from the school, and the Board of Education can be able to hand to the Board of Health the child's physical history for four, six or eight years. That would be immensely superior to the present superficial examination which the Board of Health now necessarily gives when the Board issues a work certificate. It would be rather more expensive, but I think the results would amply justify the expense. And after the child goes to work after fourteen or fifteen years, it seems to me it would be extremely important that the same system should be followed until the child reaches the age of eighteen, to find what the effects have been during the first one, two, three or four years.

Your third question refers to the law of the State relating to the employment of young children in manufacturing conducted in tenement houses. This is an extremely difficult question, on which I find very little agreement, partly, I believe, because there is so little known as to the subject in general. Various agencies have collected items of information, but they are fragmentary, they are disconnected, and there has been no co-ordination of information thus far to teach the people of this city and other New York cities the extent of child labor in home industry and in the distribution of material from the home. Of course, a great deal of information has been gathered. I would suggest, if you have not already done so, calling Miss Mary Van Kleek and Miss Pauline Goldmark on this subject.

It would seem to me, without attempting to recommend what change should be made in the law, that the general position should be taken precisely the opposite to the position we are now taking. Our present assumption is that the work in tenement homes is necessary and right, but that it should be subject to certain restrictions. My idea would be that we should assume that it was unnecessary and injurious, and at the same time favor the licensing and exemption of certain kinds of it which might be found not to be so. The argument in favor of the position I take that it is injurious and unnecessary, is based on the following facts, which can be substantiated, I believe. I will not attempt to go into the details.

First, if the work is being carried home, ordinarily it means poor light and poor ventilation. It is favorable to overwork and to the spreading of contagion and disease. It increases the employment of child labor, because there is no way of inspecting it, as in factories and mercantile establishments. We have 13,000 tenements in which manufacturing may be carried on, and there are about sixty kinds of manufacture that are practically produced in homes that require no license, because they do not come within the scope of the law. Then you could come back from the ideal of no tenement manufacturing as far as might be necessary to meet any exigencies of the situation or to meet any special case of manufacturing, like dressmaking, for instance. A further recommendation might be for a further restriction of the application of this law within the congested sections of the city, so that the home manu-

facturing would be spread out, would be scattered out into the outlying sections, thus relieving the evils.

Q. Would not that create a great hardship on a number of people? A. Temporarily I believe it would create a great hardship. I believe ultimately the result would be good, and as I have just pointed out, the tendency of home manufacture is to foster congestion.

Q. Do you believe that they would find work elsewhere? A. I believe so. I believe they would be scattered many of them to other cities, and if it were forbidden I believe better and larger factories would be established and they would employ many of them in the factories. The wages of the industries affected would necessarily be improved. Your fourth question I can answer in just a word.

Mr. ELKUS: Take your time.

The WITNESS: I feel that I have already taken more time than I should. The question, what changes in the existing laws, relating to the number of hours per day or week that women and children are permitted to work; should female minors or male minors between the ages of sixteen and eighteen be under any circumstance permitted to work more than ten hours a day? No. Male minors under sixteen and and female minors under eighteen should not be permitted to work more than ten hours a day, nor after nine o'clock at night. In Ohio males under sixteen and females under eighteen may be employed but eight hours a day.

Mr. ELKUS: You don't believe in overtime under any circumstances?

The WITNESS: There are industries in which overtime becomes necessary, but I doubt whether it is necessary for a child of sixteen or a girl of eighteen years of age. In Ohio, where the eight-hour day prevails for boys of sixteen and girls of eighteen, the law has worked very satisfactorily, and leading employers of the State, so far as I know, although opposed to the enactment of the law at first, are now very heartily its advocates, and are urging similar legislation in other States.

The second part of that question, the employment of females minors, should be forbidden. You ask in what occupations the employment of female minors should be forbidden, female or male minors. Briefly I should say the employment of female minors should be forbidden in any establishment where intoxicating liquors are sold, at least in any part of the establishment where they are sold. I think I should not apply that strictly in large hotels, where the bar may be in one part of the establishment, but only to establishments where they are employed in connection with the sale of intoxicating liquors.

The employment of female minors under the age of eighteen should be forbidden after nine o'clock at night in telephone exchanges, even if it were not made general. This, however, would conform with the rest of the law which I have recommended. The employment of male minors has already been forbidden in cities of the first and second class in this State in night messenger service after ten o'clock at night. This law, I believe, is working very satisfactorily, and we would not recommend any change on that point.

I should be glad to place in the hands of the Commission a copy of the proposed uniform labor laws which have been approved by the United States Commissioners on uniform laws of the American Bar Association.

In sections 4 and 18 will be found a list of dangerous occupations. In section 4 they apply to children under sixteen, and in section 18 they apply to children under the age of 18, which are recommended by this Committee.

Mr. ELKUS: Have you any specific questions or suggestions which you want to refer the Commission to or speak about?

The WITNESS: I have not, at present. I have done no extensive investigating of child labor in this State. My work for three years was in investigating the conditions in the coal mining and glass manufacturing sections of the country.

Q. If you have any before the first of January we would be glad to have you submit them by letter to the Commission, send them to me. A. I would be pleased to suggest any.

If you have not already done so, and if it is in order, I would suggest that you call on Mr. George A. Hall, Secretary of the New York Child Labor Committee, affiliated with the organization I represent. He is very familiar with cases in this State.

Mr. ELKUS: We will call on him. But if you find that you have in the future any specific instances where children have been employed, and you wish to refer to them, we will be glad to hear from you in regard to the same before the first of January.

The WITNESS: I will do so.

Mr. ELKUS: Does the Commission wish to ask any questions?

By Miss DREIER:

Q. Both Oregon and Illinois are large canning States, aren't they? A. They are.

Q. What law have they for children, did you say? A. They have an eight-hour day.

Q. Even in the canning industry? A. I shall have to look that up. I don't recall just at the moment.

Q. I was wondering if there was an exemption for the canners? A. I think in Oregon State that there is an exemption. In Illinois I know there is an exemption for a brief period.

Q. You don't know how long an exemption? A. It is very difficult to answer that now, but I will be very glad to answer that by letter.

Q. Then I want to ask you about the provision of tenement house work. Is your idea to license the individual who applies for the right to work there, and not the tenement? A. I think the licensing of tenement houses has caused some improvement. Formerly, the individual was licensed.

Q. But your idea I understood was to eliminate tenement house work altogether? A. That I said would be the ideal. I don't recommend it in whole.

Q. That would be the ideal? A. Yes, that would be the ideal; yes, in my opinion.

Q. Then the license ——— A. Then the license would be in the case of specific articles of manufacture, and under very special conditions, the licensing ———

Q. I see ——— A. Both the manufacturer and the home workers and the place.

Q. And the place, or field, I see. Thank you. When Doctor Wood Hutchinson testified yesterday, he spoke about an eight-hour law for children. He said that even a four-hour law would be too long. What is your opinion of the hours of labor for children? A. I have attempted to speak with extreme conservatism in reply to these questions. I think the ideal of employment for all minors who are technically wards of the State, should be of a nature to conserve their physical and educational interests, and to fit them to be successful wage earners after they reach their majority. I think that can be reached, and will be ultimately reached, by some graded system which will combine their school period with labor during the years from sixteen to twenty-one, or up to eighteen.

Q. That would mean an improvement in the school system? A. It means a radical revolution in our school curriculum and school methods, which is very much desirable.

Q. I want to ask you about prohibiting children in work which has special dust, for instance, like the pearl button industry. I can only think of that one just now, but there are others? A. We recommend in this uniform child labor law the elimination of children under sixteen in a large group of industries, and of children under eighteen in this list, the prohibiting of children under eighteen in a large number of manufacturing and heavy industries, like certain branches of coal mining, blasting and so forth; and even in or about establishments wherein nitroglycerine, dynamite, dualin, gun cotton, gunpowder or other high or dangerous explosives are manufactured.

Q. You have that all? A. That is all here, in section 18 of this law. We recommend that.

Senator HAMILTON: The Commission will adjourn until ten o'clock to-morrow morning to meet here in this chamber.

**MINUTES OF THE HEARING OF THE NEW YORK
STATE FACTORY INVESTIGATING COMMIS-
SION, HELD IN THE CITY HALL
AT 10 A. M.**

NEW YORK, *November 18th, 1911.*

Present — SENATOR ROBERT F. WAGNER, *Chairman,*
SENATOR C. M. HAMILTON,
ASSEMBLYMAN ALFRED E. SMITH,
ASSEMBLYMAN C. W. PHILLIPS,
MISS MARY E. DREIER,
Commission.

Appearances:

ABRAM I. ELKUS, ESQ., AND
BERNARD L. SHIENTAG, ESQ.,
Of Counsel.

MR. ELKUS: We are ready to proceed.

THE CHAIRMAN: The Commission is in session.

MR. ELKUS: Mr. Charles W. Barth.

CHARLES W. BARTH, called as a witness, being duly sworn,
testified as follows:

Examination by MR. ELKUS:

Q. What is your business, Mr. Barth? A. I am a baker.

Q. A baker? A. At the present time, I am secretary and
business agent of one of the baker's unions in New York.

Q. Which one? A. Bakers' Union No. 1.

Q. And how many members has that union? A. Composed of about six hundred members.

Q. And they are what, working bakers? A. Working bakers, yes, sir.

Q. Now, have you made an investigation of bake shops in New York city? A. Yes, sir; I have.

Q. Are you familiar with the conditions? A. I am.

Q. Now, will you tell the Commission just what you found out, and after you state that, I wish you to make such suggestions as you desire to make, with reference to this matter. A. Well, I am about five years in New York city, I came over from the West. I have been working in the trade about fifteen years. I found the condition of the New York bakeries the worst I have ever seen.

Q. The New York bakeries? A. The New York bakeries.

Q. Where did you work before? A. In St. Louis, Chicago, Indianapolis, Cincinnati, and some other cities in the middle and far West, and even South.

Q. Why were they worst? A. Why, most of the bake shops in New York city are located in basements.

Q. Cellar bakeries? A. Cellar bakeries. Not ventilated at all; very few have ventilation. They are dark, no sunshine coming in whatever. The heat is terrible in the summer and in the winter they have to keep everything closed. All the windows and doors, that there is in there, are closed, and the smell of the grease, hot fat, and so on, is terrible. It is just as bad in the wholesale bakeries I have been working for over two years, in the wholesale bakeries, one of the biggest bakeries here in this city.

Q. Where is that? A. Eighty-first street, Fleischman's Vienna Model Bakery.

Q. Eighty-first street? A. Eighty-first street and East End avenue.

Q. What are the conditions in the larger wholesale bakeries? A. I found the conditions in the larger wholesale bakeries to be just as bad as in the small bakeries.

Q. Are the ovens underground? A. The ovens are underground, especially in Fleischman's, most of the ovens are located

under the sidewalk, and the conditions are just as filthy, perhaps not as bad as in the small bakeries.

Q. Now, you say the conditions are filthy in the small bakeries. Will you describe just what you mean? A. Well, I have seen bakeries, especially in the lower East Side, and the Hebrew and Italian quarters, the whole family is located in the bake shop.

Q. They live in the bake shop? A. They live in the bake shop.

Q. How long ago did you see that? A. I have visited almost every bakery in the Borough of Manhattan throughout our strike last year, in my capacity as business agent, and as special organizer, seeing almost every bake shop from Fort George down to the Bowery, but the worst condition I found was in the lower East Side, or the old part of the city of New York, where I have told you I have seen whole families in bake shops, where they raise chickens in the bake shop, rabbits; where they keep dogs and all kinds of animals.

Q. Why do they keep chickens, dogs and cats? A. I could not tell you the reason why. I seen it though.

Q. Can you give us any specific instances of any place where you saw those conditions? A. I have not got those numbers in mind, but I could get them, I think, very easily if I go around. I have seen some on Cherry street.

Q. Did you ever work in bakeries in Europe? A. No, sir.

Q. Now, have you described all you want to about the conditions as you found them, Mr. Barth? A. What is that?

Q. Now, have you described all the conditions of the bakeries in New York city as you found them? A. Well——

Q. Or is there anything more you would like to tell us about them? A. Well, I just wanted to say that I have seen bakeries where the water in the case of a rainy day like to-day, where they have water in there sometimes three and four inches high.

Q. You mean on the floor? A. I mean on the floor.

Q. They were not water tight? A. I have seen one bakery down town, between 103rd and 104th street, it was about last year this time, they didnt have any floor in there whatsoever, just a cinder floor. I came in there a day after we had a heavy down pour of rain, and the men had to stand in the water ankle deep.

Q. They were standing in the water ankle deep? A. Yes, sir; they were.

Q. And that is where the bread was made? A. The bread was made right in this place.

Q. And the water came in from above on that floor? A. Yes.

Q. Well, about the door, was water coming in the door, too? A. No, it could not come in the door. It came in the stairway leading down to the basement, and there was a small window located right above that.

Q. Did they wear much clothes, and were they dirty or clean? A. I have seen bakeries where they didn't wear any, and I have seen at Fleischman's, especially at Fleischman's Vienna Model Bakery, in the summer time, where the men only wear a pair of overalls, and a pair of shoes, and the sweat is running down their bodies.

Q. The sweat running down their bodies? A. Yes, sir; and they have to put the dough in the machine, and the dough came in contact with the body, the sweat was going on the dough.

Q. Were these men clean or dirty? A. Well, it is very hard to keep clean in any bakery, especially in a small one.

Q. You say you saw bakeries in St. Louis and Chicago? A. Yes, sir.

Q. How do they compare with the ones here? A. The bakeries, especially in the city of Chicago, are much better.

Q. Are they in cellars? Some of them are in cellars, but they put up a good fight against the cellar bakeries about two years ago, especially our International Union, and the bakeries located in the basement at the present time, we can call them sanitary. They are clean.

Q. What would you suggest or recommend to be done about the bakeries in New York city? A. Well, the first thing would be thorough inspection.

Q. By whom? A. Either by the Board of Health, or a special board for this purpose. A bake shop should be inspected at least once a week, and inspection should be done by experienced men. For instance, a baker should be the one to inspect, an experienced baker; a baker that knows exactly where the stuff is kept. If we have a man who is a bricklayer, or a plumber or something

like that, to go around and inspect the bake shops, he will never find the spot where the eggs are kept, or the pie crust, or the jelly; he would never look underneath the troughs, and find dirt accumulated down there.

Q. Have you ever known of bakeries in New York city buying bad eggs and butter and things like that? A. Yes, sir.

Q. What have you known about that? A. We sent several complaints to the Board of Health last year, and to the Women's Trade League. The Women's Trade League at that time, as I understand it, inspected it; and we reported everything, the conditions in the bake shop, what products and everything.

Q. Go on with your suggestions. You said there ought to be an inspection once a week by a competent man? A. Yes, sir.

Q. Now, what else would you suggest, would you suggest that all bakeries be licensed, all bake shops? A. Yes, that would be a very good thing.

Q. How about allowing no new bakeries to be built in cellars? A. That should not be allowed. As I understand, there is a law at the present time which is against building bakeries in cellars or basements, but I am not positively sure that this law is in existence or not. If it is in existence, it is violated against almost every day.

Q. Well, I don't think there is any law in existence now. A. I heard it. I heard there was a law in existence.

Q. Well, have you anything further to suggest, Mr. Barth, with reference to improving the conditions in the bakeries in the cities? A. Well, I have no further recommendations, only that there should be an inspection, and this would help a great deal; and I am fully in favor of licensing.

Q. You are fully in favor of licensing? A. Yes, sir.

Q. Do you know anything about the condition of the bakeries in Brooklyn? A. No, sir; I am not familiar with them.

Q. Or in the other cities of the State? A. No.

Mr. ELKUS: Any questions, Mr. Chairman?

By Assemblyman SMITH:

Q. Are you able to recall just how long ago you saw the bakery with chickens in it in New York city? A. Well, this was

through our strike last year. The strike broke out in the first of May, and was up to about the first of September.

Q. Do you remember where that bakery was? A. I seen it right in the lower down-town district. If I go down there I will find it very easily.

Q. Do you know whether the man had a license from the Board of Health to keep chickens, which he has to have? A. I suppose not.

Assemblyman SMITH: That is all.

DAVID CUMMINGS, called as a witness, and duly sworn, testified as follows:

(NOTE. — All of the photographs referred to in the following testimony are set forth in Appendix III to Volume I of the Report.)

Examination by Mr. SHIENTAG:

Q. What is your full name? A. David Cummings.

Q. Where do you live, Mr. Cummings? A. 68 South Fourth street, Brooklyn.

Q. Did you inspect a number of bakeries in New York city for the Commission? A. I did.

Q. When did you inspect the bakeries? A. During the last three weeks.

Q. Where were these bakeries located? A. Most of the bakeries I inspected were located in cellars.

Q. In what part of the city? A. On the lower East Side.

Q. How many bakeries did you visit? A. I believe I visited 78 bakeries.

Q. Did you visit a bakery on Mott street? A. I did.

Q. What number? A. 125 Mott street.

Q. Will you tell the Commission the conditions you found in that bakery when you were there? A. Well, I came down there about half past two in the afternoon. The bakers were just

preparing to go to work, most of them were smoking and chewing tobacco.

Q. Were they in the bakery? A. In the bake room; two of them were sitting on the bench, on the dough-mixing bench. One of them, who said he was a helper, was drinking whiskey. He said he felt bad, and he needed to have some whiskey.

Q. He said he felt bad? A. Yes, he did.

Q. Did he say he was sick? A. He said he was sickly.

Q. Did you ask him what was the matter with him? A. I did.

Q. What did he say? A. He said "I have an awful headache; I can't stay here."

Q. Was a picture taken of that? A. Yes.

Q. Of that establishment, is this it? (Handing photograph to witness.) Is this the photograph that was taken? A. It is.

Q. At the time you were there? A. Yes, sir; that is the one.

Mr. SHIENTAG: I would like to have this marked, Mr. Chairman. (Marked Exhibit 1 for identification.)

The WITNESS: By the way, I found a cat and two little kittens in a corner there, and one of the kittens was on a bench, the baker called her over.

Q. On what bench? A. On the dough-mixing bench.

Q. Did you visit any other bakeries? A. Yes, sir; I did.

Q. Will you describe the conditions in the bakery at 37 Market street? A. Why the bakery is located in the cellar, about half a foot below the level; about a foot and a half.

Q. Yes. A. There is a door opening in the bakery. There is a little grating across the street there, and there is a door opening below. There is a stairway opening to the street and the dough is exposed to the dust and refuse that comes in from the sidewalk.

Q. Isn't there any protection of any kind? A. There is no protection whatsoever.

Q. And is this (handing photograph to witness) a picture that was taken of the place when you were there? A. Yes, this is the one. There is some refuse on the stairs there (indicating).

(The photograph was received in evidence and marked as Exhibit 2 of this date for identification.)

Q. Did you visit the bakery at 125 Market street? A. I did.

Q. Tell the Commission what you found there. A. I found there two windows in the bakery and both of them open to the dirt from the area way, and the dough and bread was exposed to this dust that came in from those windows. There was also a cat sleeping on the bread, on the bread tray, and another one was on the bench, feeding. While I inspected the bakery I found that the men were having lunch, and sitting on the dough-mixing bench, having their lunch, and one of them was at the same time feeding a cat there.

Q. On the board on which the dough was mixed? A. Yes, sir; and he was also smoking a pipe while we were in there.

Q. Is this a picture of that establishment (handing photograph to witness). A. This is the one, yes. This is his pipe, here (indicating).

(Photograph was received in evidence and marked Exhibit 3 for identification of this date.)

Q. What was the next bakery you visited, Mr. Cummings? A. 27 Henry street.

Q. Was that a cellar bakery? A. Yes, it is about three feet below the level.

Q. How many men are employed there? A. Two employees, and the employer also works in the bakery.

Q. What time were you there? A. We were there about eleven o'clock, eleven p. m.

Q. Will you tell the Commission the conditions you found in that place? A. Well, in practically all the bakeries I visited they had no lockers or room to keep their clothes. In this bakery I found the clothes hanging on the wall, and I found a dirty pair of pants placed on the bench.

Q. The clothes were hanging right over where the loaves of bread were? A. Yes, right over the bread.

By Miss DREIER:

Q. Right over the bread, so the bread could touch it? A. Yes, Madam.

By Mr. SHIENTAG:

Q. Is this a picture of the place you visited? A. Yes, this is the one. Also, the bread was in the sink, part of a loaf of bread was on the sink. The sink was level with the loaf of bread.

Q. Was it freshly baked bread? A. Freshly baked bread.

(Photograph was received in evidence and marked Exhibit 4 for identification of this date.)

Q. What was the next bakery you visited? A. 258 Cherry street.

Q. What time were you there? A. I was there about midnight.

Q. How many people did you find in the place? A. Well, there were four employees and the employer was also working, five of them.

Q. What time were you there? A. About midnight.

Q. When, on what day? A. On Thursday — Wednesday night, November 8th.

Q. November 8th? A. Yes.

Q. Will you tell the Commission what you found there? A. Well, I found they did not have any ventilation or window. They had one little window that was open to the yard and the bread, the dough, was placed on the floor, which is an earthen floor, exposed to the dust and refuse that came in through that little window that opened to the court.

Q. And is this picture (handing photograph to witness), that I show you, a photograph of the place you visited? A. Yes, it is, it's the one. There was also a barrel of coal there on the floor, very near the bread.

Q. Was a cat also running around in this place? A. Yes, there was. We tried to get the cat on the picture, but the boss called it out. He said, "Come on, kitten."

(Photograph received in evidence and marked Exhibit 5 for identification of this date.)

Q. Did you visit the bakery at 27 Henry street? A. Yes, sir; I did.

Q. When? A. On November 8th.

Q. What time? A. About ten thirty.

Q. Was this a cellar bakery? A. It was.

Q. How many people were employed there? A. Three.

Q. Will you tell us just what you found there? A. Well, I found the place, the walls and ceilings were dirty. I found ants and roaches going all over the walls, and all over the bread, the bread tray.

Q. In the bakery, where the bread was baked? A. Where the bread was baked.

Q. And was there a drain pipe running down that room? A. Yes, there was.

Q. Unprotected in any way? A. Yes, unprotected.

Q. Is this a picture (handing photograph to witness) of the bakeshop at 27 Henry street? A. Yes.

Q. Showing the ants on the walls? A. Yes, sir. And I asked the employer how often he whitewashed the walls. He said about once a year, around the Jewish holiday he said he whitewashed the wall.

Q. Did you ask in this bakery whether their place had been inspected by the State Department of Labor or the Health Department? A. Yes, I asked them and they said, yes, they were, but in most bakeries they had cards from the Department of Labor. When an inspector goes there he puts a stamp on the card, most of the places I found have not been inspected since the early part of 1910. I found one bakery the other day where the stamp was December 1, 1909.

Q. Where was that bakery? A. On Cherry street, I believe. I can't remember the number now.

Q. Can you get the number of that place for the Commission and send it to us? A. I believe I can.

(Photograph received in evidence and marked Exhibit No. 6 for identification of this date.)

By Miss DREIER:

Q. Did you find any evidence of people sleeping there? A. Yes, I did.

Q. Did you find any one asleep in any of the bakeries? A. Yes, I did in 125 Mott street, we found a man asleep. The employer came around and woke him up; he said, "Get up, John."

Q. Where was he sleeping? A. On the dough mixing bench.

Q. On the mixing bench? A. Yes.

By Mr. SHIENTAG:

Q. Did he have street clothes on? A. Yes, he did.

Q. Did the bakers have street clothes on in any of the places you visited? A. In most of the places.

Q. Or were they furnished with other clothes? A. Some of them had special overalls, but you see some as they are when they are in the street.

Q. Was their appearance cleanly? A. Why, very dirty.

Q. Did you visit the bakeshop at 30 Henry street? A. Yes, I did.

Q. When? A. November 8th.

Q. At what time? A. About ten p. m.

Q. How many people did you find there? A. I found five.

Q. Did anybody sleep in this bakery? A. No, all were busy working. It is a very small place, and they could not fall asleep there.

Q. How small is it? A. It is about thirty feet by twenty-five feet, very small.

Q. How many people were working there? A. Five.

Q. Will you describe the conditions in that place to the Commission? A. Why, I found the coal was stored in the shop.

Q. How near to the oven? A. Well, about five feet — three feet away from the oven.

Q. Uncovered? A. Uncovered. I also found some loose wood on the floor, and there was a tray with partially baked cakes placed on it right near the coal. I found a barrel of sugar used for baking cakes, uncovered, and covered with thick dust.

Q. Is this a picture (handing photograph to witness) of the place in Henry street? A. Yes, that is the picture.

(Photograph received in evidence and marked Exhibit 7 for identification of this date.)

Q. Will you describe to the Commission in a general way the sanitary conditions in the 78 bakeries that you visited, Mr. Cummings? A. Well, the sanitary conditions were very poor. There was no ventilation.

Q. In what way? A. There was no ventilation in any of them. Out of the 78 bakeries I visited I found an exhaust fan in one bakery; one bakery had an exhaust fan.

Q. That is, there was artificial ventilation in only one bakery? A. Yes. That was out of use, the belt was cracked.

Q. In all these bakeries artificial light is used all the time? A. All day long, day and night.

Q. Did you find evidence of smoking in many of these places? A. I found evidence of smoking in about twenty bakeries.

Q. And in how many bakeries did you find people actually asleep when you were there? A. About eight or nine.

Q. Was there a cot there? A. There was a cot in one bakery.

Q. What bakery was that? A. It was one on Stanton street.

Q. Do you know the number? A. I can get it. I don't remember the number now.

Q. Did the bakers chew in any of the places you visited? A. No, Jewish bakers, as a rule, don't chew.

Q. Do they smoke? A. Yes, and in many of the places I found cigarette and cigar ashes on the bench.

Q. What bench? A. The mixing bench.

Q. You found cigarette dust, I suppose? A. Yes, I did. In the union bakeries I visited the conditions were not as bad as the others, because they said they would see that the bread was clean, and that the consumers would get good things there.

By Miss DREIER:

Q. I would like to ask you what you think is the proper remedy for these conditions? A. Well, remove the bakeshops from the cellars, because I inspected eight bakeries in Yonkers, and out of six or eight, they had about three of them on the level with the sidewalk, and in those bakeries the men were all healthy looking.

By Assemblyman PHILLIPS:

Q. What kind of stuff was baked in these places? A. In these places bread was baked, and what they call Jewish bread, that is over on the East Side.

Q. Do you know what price it sells for? A. Six and seven cents a loaf.

Q. Does it sell cheaper than the other bread? A. No, it does not. I asked one employer, how is it that your place is so dirty, and he said, why the people around here, for the money they pay, they must take whatever we hand to them.

Q. Is the bread sold right in that immediate neighborhood? A. Yes, it is sold, and in many bakeries they also have stands on the stairs, going down to the bakery, for instance, selling bread, and the bread there is uncovered and exposed to the dust and refuse from the street.

Q. Do the people buying that bread know of the conditions of the bakery? A. I don't believe they do.

Q. The bread is sold, is that sold in the basement? A. Why, yes, on the stairs leading to the basement.

Q. How is the condition of the place where the bread is sold, how does that look? A. Why, very dirty.

Q. Very dirty? A. Yes, sir.

Q. The people buying the bread see that condition, don't they? A. They do.

Q. Yet they buy it? A. Yes, sir.

Q. There is no deception in that regard? A. No.

Q. If a clean bakery started in that neighborhood, would it be able to sell its bread to better advantage than the other bakeries?

A. I believe it would, if the conditions were remedied. In the bakeries in question, if the conditions were improved they would get more patronage.

Q. Would that increase the cost of the bread? A. I don't believe it would.

Q. Would an increased cost in the bread in that neighborhood prevent the people from buying it? A. No, it would not.

Q. Are there any union shops in the neighborhood that you found these bakeries in? A. Yes, quite a number of them.

Q. And they are competing with these bakeries, or are they in a separate neighborhood? A. They are in the same neighborhood.

Q. Is the place where the bread is sold in the union bakeries, clean? A. Why, some of them are clean, not all of them.

Q. Better than the others? A. Better than the non-union bakeries.

Q. The people who come to buy bread in the bakeries you have described, do they know of the existence of these clean bakeries? A. About two years ago we had a general strike of the bakers. There were several magazines and newspapers which had a series of articles describing the conditions in the bakeshops. I believe that is all they know about it.

Q. I mean do the people who buy from these unclean bakers know of the existence in the same neighborhood of the bakeries which you say are cleaner? A. They do.

Q. And yet they do go to these bakeries in preference to the others which you have described, which you say are cleaner? A. Yes.

Q. They are unable to tell the difference, are they? A. They are unable to tell the difference.

Q. In the bakeries where the bread is sold, is it sold on the street? A. On the stairs, on the stairs going down to the basement.

Q. In the union bakeries is the bread sold on the stairs? A. No; in very few.

Q. It is a clean place? A. A clean place.

Q. They don't sell bread to the people in the neighborhood? A. They have stores on the ground floor.

Q. Are there shops in the neighborhood of these bakeries where the consumer can buy his bread, and buy it cleaner than he does on the stairs? A. There are some bakeries, and they get more patronage than the others.

Q. Why do they go to these bakeries? A. I believe they sell it a cent cheaper.

Q. It is cheaper? A. Yes, in some places.

Q. That is the question I asked you some time ago? A. The price is cheaper in some, but not in all.

Q. Where they sell it on the stairs, it is cheaper than in the cleaner places? A. Yes?

Q. That is the reason you believe they go there and purchase it? A. Yes, it is. I believe if the Department of Health, or any Department prohibited the sale of bread on the stairs leading to the bakeries, or would establish a law calling for better handling and better care of the bread that we would have abolished the sale of bread on the stairs leading to the bakeries.

Q. In that case, the fault is really with the consumer who purchases the bread? A. It is both with the consumer and the baker.

By Miss DREIER:

Q. Is it not largely a matter of the convenience of the housewife who runs out and buys bread wherever it is convenient?

A. Yes. At No. 17 Essex street, a non-union bakery —

By Mr. PHILLIPS:

Q. Do they give you a larger loaf of bread than the others? A. No, the same loaf of bread.

Q. But they sell it cheaper? A. Yes. At 17 Essex street, a non-union bakery, I found the door locked when I came down to inspect it.

By Miss DREIER:

Q. Do you think that these are fire traps, could people get out? A. Well, most of them are. They have only one door and one

fire-escape, and the most of the doors blocked with boxes, bread trays, bags of flour, and other things which are very inflammable.

MICHAEL H. BARSKY, called as a witness, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Doctor Barsky, are you a physician? A. I am.

Q. How long have you been one? A. For the last five years.

Q. Are you a practicing physician in this city? A. I am.

Q. And of what institution are you a graduate? A. I am a graduate of Cornell University, Medical College.

Q. Any other institution of learning? A. I have been on the House staff of Mt. Sinai Hospital; Beth Israel Hospital; Lying-In.

Q. And you are a general practitioner? A. Yes, sir.

Q. Where is your office, Dr. Barsky? A. My office is on Seventh avenue, 2313.

Q. What is your full name, Doctor? A. Michael H. Barsky.

Q. Doctor, you have made certain investigations for this Commission? A. I have.

Q. And will you tell us, did you examine — your examinations have all related to bakeshops? A. They have.

Q. What has been the purpose of your investigation and examination? A. Why, to ascertain the physical condition of the baker as much as possible, both by examination and his answer to all questions put to him, and in a way, his personal cleanliness.

Q. How many examinations have you made for the Commission? A. I think 198.

Q. And during what time have you made them, I mean since when and up to when? A. I don't recall.

Q. The last one was when? A. The last examination was made last week at Yonkers.

Q. Now, I am going to ask you to give certain specific cases and ask you whether these are types of cases that you examined. Have you got your blank? A. I can only tell by referring to the blanks.

Q. Can you get them and give me the result of your examination; give names, details and localities, and the exact facts and, if you will, give it to us in plain English. A. In a way, these cards are somewhat unsatisfactory. Half the data is obtained by the response of the baker to the questions and how accurate his response is, of course, is questionable. He may or may not tell the truth. In a majority of the cases, in the first instance there was a general denial, and it was only upon trying to obtain specific instances and asking about particular things would he admit anything, but in the majority of cases, in an off-hand manner, there was a general denial made to all questions.

Q. May I interrupt you a moment? Instead of giving the name of each one, give his initials, and give the exact location. I don't want to hurt any man's feelings by having his diseases published. A. The first one on hand is that of G. E. He is an Italian who bakes mostly bread. He is 24 years of age. He has spent six years in the trade, and he is married, and his general condition is good. His personal cleanliness is poor.

Q. Well, now, describe what you mean by poor personal cleanliness. A. In poor personal cleanliness two things were taken into consideration in making this statement, both the condition of his clothes, and the man's appearance, that is, whether his hands were clean, whether his finger nails were clean, whether sweat was permitted to accumulate on his face, and his arms, and roll down into the bread which he was handling, and whether he smoked and spat out on the floor; his personal cleanliness was poor. I don't know whether you want the kind of labor?

Q. Yes. A. This man was a union man and he worked eleven hours a day, and he was employed six days a week, his usual time before beginning work was six o'clock, and he completed his labors at five. He said he had no vacation.

Assemblyman SMITH: Will Doctor Lederle and Commissioner Walsh be kind enough to come up and sit where they can hear this?

Proceed, Doctor.

The WITNESS: Well, he denied any previous illness, and on examining him I found he had some anemia in a marked degree.

Q. What? A. Anemia, that is, his blood was poorer than it should be for a healthy person. His color was bad, and his eye lids were also poor. We found from his body he had a rash, mostly due to scratching, and on careful examination, we found that the rash was due to body lice. Outside of that he had a slight bronchitis.

Q. When you examined this man was he engaged in his work? A. He was actively engaged. All these examinations were made during the hours in which they were engaged in labor, and so all of them were actively engaged in their work.

Q. Go ahead with the next one. A. The next case is A. D., also an Italian on Second Avenue, 2034.

Q. That is between what streets? A. That is, I think between 98th and 99th streets, around that vicinity. He also was employed in the same shop where the previous man was engaged; and he suffered from the same condition. He also had body lice.

His hours were the same. He worked eleven hours a day, six days a week, usually beginning at six o'clock and finishing at five. His condition was poor, if I recall this particular instance, and his clothes were saturated with filth, and when he was engaged in his work wearing the same clothes all the time, it was only a question of time when the whole thing was a matter of body fat and body sweat.

Q. In baking the bread, do they touch the dough to their clothes? A. Very little.

Q. Anything more about that case, Doctor? A. Nothing except about the person were all body lice.

Q. Take the next one. A. The next case, that of W. Z., a Russian, baking also on Second avenue.

Q. What number? A. 1919.

Q. That is a different store? A. Yes, sir.

Q. What about him? A. He was 45 years of age. He entered the trade at the age of seventeen, and he has been engaged as a baker for thirty-three years. He has been at labor in this particular shop for six months.

On inquiring into his family history, he denied any previous illness, but on questioning as to his own condition, he said that at one

time he had suffered from what was thought to be at that time tuberculosis, consumption. He was married and had two children. He was a member of the union. He worked nine hours a day, six days a week. His hours were from six to three. He had no vacation.

His personal cleanliness was bad. Then he must have been — I don't recall this particular instance — but it must have been a degree worse than the conditions I stated before. He complained of suffering from habitual headache and cough. His blood was in poor condition. He had some anemia. He also had a double rupture on both sides.

Q. Anything else about him? A. On examination of his lungs, I found signs of tuberculosis.

Q. You thought he was suffering from that? A. Yes. The sputum in this case was taken. I don't know what the report was or whether the sputum was satisfactory, because you cannot always tell by the reports.

The part affected was the right side, the right lung.

Q. These examinations, Doctor, were they made at random throughout the city? A. We examined the lower East Side, the Upper East Side, the West Side, the lower part of the Bronx, the upper part of the Bronx and Yonkers, so they were pretty well scattered throughout the city. We examined any bakery we came to, and examined most in that vicinity.

Q. Take the next one. A. This case in that of J. G., a Russian, and the place employed is 355 East 101st street. He is 32 years of age. He has been a baker sixteen years and entered the trade at the age of sixteen. He has been employed in this particular shop for six months. He denied any previous illness. Married, father of five children. His weight is 110 and his height is approximately 5 feet 4 inches. A great many of these bakers did not know their height and made a fair guess at it. His general appearance was poor and cleanliness was bad. He worked nine hours a day and six days a week. He claimed he had no vacation at all. He had a moderate amount or degree of anemia, and his lungs on one side showed the signs of infection, tubercular infection.

Q. The next one — how many more have you there? A. I have just two here. W., he was a Swiss, and this is 2845 Eighth avenue.

He was 46 years of age, a baker 19 years, and been employed in this particular shop for three years. Questioning him as to whether he had ever been sick, he said that he had suffered repeated attacks of acute rheumatism. Married, seven children, weighed 137 pounds; height 5 feet, 9 inches. His personal cleanliness was fair. He worked ten hours a day, six days a week; was employed from three in the afternoon until one at night or thereabouts. His joints, particularly the knees, were stiff. He was coughing, and an examination revealed he had bronchitis. He had an advanced degree of arteriosclerosis — hardening of the arteries, and he was rheumatic.

Q. What was the next one? A. The next one is J. P., an Italian, employed on Second avenue, 1974; 28 years of age, had been seven years a baker and employed in this particular shop for one week. He was not a member of the union. He was married. His weight was 165 pounds; height six feet. General appearance fair, while his personal cleanliness was poor. He was employed about eight hours a day and he worked seven days a week. He had no vacation at all.

Q. Did he work in the night-time or the day-time? A. Most of these worked nights. The examinations occurred at twelve p. m. He was working nights. His skin showed what is commonly known as pimples and technically known as acne. He had a condition known as acne extending all over the body and even on to his arms, so that the part that necessarily mixed the dough was also affected.

Q. Did these pimples discharge matter? A. Some of them that became infected do; quite a number can.

Q. Is it poisonous at all, unhealthy? A. It is unhealthy, yes, sir. An examination of this man's lungs revealed that he had a bronchitis which looked very much to be tubercular. A positive diagnosis could not be made.

Q. Are these cases fair examples of the 198 that you examined? A. Well, they are in a way.

Q. I mean generally speaking? A. Yes.

By Assemblyman PHILLIPS:

Q. Were there other men employed in the bakeries besides the men that you referred to? A. In these particular bakeries?

Q. Yes. A. Yes, sir.

Q. Very many? A. Why, the average bakery runs from two to five men.

Q. What was the condition of the other workmen there? A. Some of them were in fair health; others were in good health, and some of them suffered from slight ailments that were not of sufficient importance or marked enough to ——

Q. What was the general condition of the bakeries in which they were working; was that in keeping with their condition—was that unsanitary and bad? A. In quite a number of instances, yes.

By Miss DREIER:

Q. Did you go into any of the large bakeries and examine the men in the large bakeries? A. I think the largest bakery that we examined had six employees.

Q. Were they all cellar bakeries? A. With the exception of those in Yonkers, they were all cellar bakeries.

Q. You cannot give us an idea what the effect on the men would be of the better ventilated and sanitary bakeries—from your examination? A. Well, I can only make one or two general statements.

Q. What is it? A. It would be possible to give an idea.

Q. What is your opinion? A. In the majority of places, there was no effort made at all to permit the men, had they been so inclined, to change their clothes frequently. An arduous occupation like the baker's, with a temperature, average temperature of anywhere from 70 to 85, a man sweats a great deal, and it is only a question of an hour or two before his clothes and entire person become saturated with perspiration, and at no place at all in examining 198 bakeries, have I seen an effort made either by the men themselves or by the owner, to prevent the perspiration from reaching and touching and coming in contact with both the bread and the utensils. In the majority of the places there were no towels and where there was a sink it was in an out of the way place, and there was no soap. The men, most of them, wore the same clothes they must have worn for months and months previously, because it would be impossible for their attire to reach that state unless it

had been collecting for that great length of time. In some of the bakeries it was impossible for the inspector and myself to stay but a very short time, the air was so foul, the accumulation of coal gas was tremendous, we could not catch our breath, and we were coughing while we were there. In a great many cases they had marked bronchitis, and may be other conditions. Of course, the condition of the atmosphere is caused by the smoke and by the dust, and it was sufficient to give anybody acute congestion of the lungs, and a susceptibility to a great many other conditions.

Q. What is your remedy for improving these conditions, both as to the personal habits of the bakers, as well as the general condition of the bakeshops? A. The only thing I can suggest would be some body to look after it, both from a hygienic and a sanitary standpoint, and take any precautions that are necessary, such as the installation of proper cleansing apparatus for the bakers, such as baths, towels, soap and all that, clothes, and regulating the ventilation of the place as well as the handling of the dough. In all of these places the dough is thrown around promiscuously. The common way of drying one's hands would be to take the flour and rub it on one's hands until the perspiration came off, and then throw it right in and go right ahead with the bread. That is a very common way. When they mix the dough and their hands become moist or perspire, they take additional flour, rub it on until dry, and throw it right into the rolls, bread, cake, or whatever else it would be. In most of the places all the baking is done by hand, and when the dough is mixed, as it is in a great many places by the men, they bare their arms way up to the arm pits, and naturally his chest, whether it be closed or not closed, comes in contact with all the bread. The majority of bakers drink, drink large quantities of water and beer, and are constantly expectorating, and in some cases they are careful not to spit on any particular point and other places that is immaterial, as long as it leaves the mouth, just where it goes. In all these places the majority of the bakers were also smoking, and they were working at a stretch of about nine hours, and each hour and each particular minute has its work to do. They have to get everything done on a certain time, so they really are not in a position to take any care at all, such as wiping off perspiration or going aside to spit, or any other necessities, as far as personal cleanliness is concerned.

Q. Do they have to get out a certain amount of bread in that time? I mean are they paid according to how much they do, or what? A. Well, you see there are so many loaves of bread that have to go in the oven, and takes so long to bake each loaf, and they have to get it in at a certain time and take it out at a certain time. They first make bread, then rolls, then other kinds of bread. For each particular hour there is a certain amount of labor to be done. Most bakers, instead of having a pulse of eighty or ninety, as normal, in a great many instances, both on account of the heat and rapidity with which they are compelled to work to get out the requisite amount of work, the pulse was 20 and 30 beats higher than normal, without finding any other reason than the heat and the rapidity with which they were compelled to work.

Q. Do you think most of the bakers are working under too great pressure, is that your opinion? A. I do think so.

Q. What would be your remedy for that? Would another baker in the shop remedy that? A. Yes, I think it would. It is very hard to say. They certainly work much harder than they should. That condition is true both of union and non-union bakeries.

By Mr. ELKUS:

Q. Did you notice anybody sleeping in any of the places? A. Only in one place.

Q. Was this a man or a woman? A. This was a proprietor.

Q. In bed or just on the floor? A. He was sleeping on the mixing board.

Miss DREIER: What do you think of nine hours; is that a good time to work?

The WITNESS: It seems quite fair, but my opinion would not be of value on that particular topic.

By Assemblyman PHILLIPS:

Q. These men you have described are naturally and inherently unclean; aren't they? And they don't know how to be anything else? A. Why, I guess that is true.

Q. No amount of inspection will improve them very much?
A. I don't think so, no; I think it would.

Q. You think it would? A. I certainly do.

Q. That they could counteract their natural and inherent tendencies? A. I certainly do.

Q. It would have to be a constant inspection, would it not? A. That I cannot say —

Q. (Interrupting) To find out how a man is handling the dough and the condition of his arms and hands. A. Well, for things like that, if it was an understood affair, and a part of their duty to remain clean, I think they would do it.

Q. Are there good bakeries in the immediate neighborhood of the bakeries you have described, where the men are clean and the bakeries clean? A. There are some bakeries that are much cleaner than others.

Q. I mean now in the immediate vicinity of these bakeries?
A. Yes.

Q. And do the workmen in these bakeries live in the immediate neighborhood? A. It is pretty hard to say. Most of the addresses we did not take.

Q. Are they typical of the neighborhood which they are serving? A. Yes; they are.

Q. Is bread made under any worse conditions there than it would be likely to be made if it were made in the homes of the people living around the vicinity? A. Much worse.

Q. Much worse? A. Yes, sir; much worse.

Q. Do they sell their bread any cheaper than other bakeries?
A. I am not in a position to say.

Q. Or larger loaves? A. I could not tell you.

Q. But in other neighborhoods you find better bakeries than you find in the neighborhoods where you have described? A. Why, you know, the kind of neighborhood has very little to do with the bakeries. Some of the nicest bakeries we struck were in a poor neighborhood.

Q. What I want to know, find out, is whether or not the bakeries reflected the conditions of the surrounding neighborhood?
A. Not always; no.

Q. And their wishes? A. Not always; no.

Q. You found good bakeries in what might be termed unclean neighborhoods? A. Poor neighborhoods, yes.

Q. Are other bakeries able to do business along side of them — the unclean ones along side of the good bakeries? A. Well, I guess they are, because they are doing it; you see most of these places —

Q. The point I want to get at that is at all material here is this — is a bakery of the kind you have described, able to do business and sell its bread in a neighborhood in which there is a good bakery? A. Most of these bakeries have a sign right in the workshop, "Admittance Absolutely Prohibited," and they enforce that rule. In quite a number of places we went into, at first they refused to let us in altogether, and in another one, we even presented our credentials and we had quite a time to inspect the place. All this baking is done under ground, at a very late hour, and no one knows what is going on.

Q. So the people in that neighborhood are not able to tell which is a good bakery and which is a bad one? A. No; not at all.

By Mr. ELKUS:

Q. The baking is most all done at night? A. Of bread and rolls; yes.

By Assemblyman PHILLIPS:

Q. How are the large bakeries of the city as regards cleanliness and sanitary conditions? A. Well, the only thing I can say in answer to that is that we inspected one large bakery of our own volition. We dropped into Ward's Bakery, while we were in the neighborhood, and we just looked through that as a matter of interest, but we made no examination, no inspection.

Q. Where is that? A. That is on Southern boulevard and 147th street, I think.

Q. Ward's bakery? A. Yes.

Q. Is that a good one? A. A very elaborate place, and most of the work is done by machinery, but we did not look at it elsewhere, and we were not supposed to look at it, to inspect it. We just did it as a matter of interest.

Q. A bakery that is operated by machinery, will you tell us in what way the machinery is used—is the bread kneaded by machinery? A. Yes, it is.

Q. So it makes it unnecessary for the worker to touch it with his hands? A. After that is done, after the bread is kneaded or mixed, they have to knead it once more, so as to give it a uniform consistency, and then they have to cut it up, and then they weigh it, each loaf is weighed before it is baked. So in spite of that, it receives a certain amount of handling.

Q. Is the discipline any better in the larger shops as regards cleanliness of the workers and their habits? A. Why, No. I think in some of the smaller shops, where the employer works himself, we have the best conditions.

Q. Did you ever see them knead the bread with their feet? A. No, I did not see that.

By Miss DREIER:

Q. Do you favor the examination of bakers before they are permitted to be bakers? A. I very strongly do. It has been our experience in examining quite a number of the German bakeries in which this has been done, that not only did they personally approve of it—that is, they from their own standpoint liked it, but expected it, it having been done on the other side.

Q. In Germany? A. Yes; and the majority of the bakers under examination we had no trouble at all; in the majority of instances we had co-operation, and they really wanted to know what was right physically, whether there was any reason why they should discontinue their employment as a baker.

Q. Their feelings were not hurt by being examined? A. I recall only one instance, and this was a very old man who was somewhat unbalanced, but he was the only refusal I had out of about 300 or 400 cases which I looked, and of whom I examined approximately 200.

By Assemblyman PHILLIPS:

Q. What do you think of requiring licenses before a man can become a baker, and an examination as to the personal conditions and possibly a probative period during which his general cleanli-

ness and habits could be tested? A. I think that would be a very good idea.

Q. Would it be asking too much? A. No; I do not think so.

Q. It would be better than allowing almost any one to become a baker and trying by inspection to compel them to do something that is inherently impossible, assuming that they are inherently indifferent as to how they handle the bread—it would be better if that fellow was not allowed to act as a baker, would it not? A. Yes; and a great many of these people simply do as they do, because it is the easiest thing and nothing else is expected of them or anything else required. Were they given the least idea that it is not the proper thing to do, a great many of the things they do I am sure would cease, but no distinction is made, no one corrects them. Whatever they do is good enough, and it becomes a question of habit with them. They do not know they are committing any wrong.

Q. Perhaps, then, the employer ought to be licensed, for he is the man that keeps up the discipline among his employees. A. Possibly that would help too.

ERNST J. LEDERLE, called as a witness and being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Will you state your connection with the Department of Health of the city of New York? A. I am Commissioner and President of the Board of Health.

Q. How long have you held that position? A. Held the same position in 1902 and 1903, and this term since the beginning of 1910.

Q. You are a practicing physician? A. No, sir; I am a chemist.

Q. Generally speaking, what is the jurisdiction of the Health Department over manufacturing establishments in this city, and over bakeries? A. The provisions of the Charter in relation to the Health Department gives the Health Department broad powers in all matters connected with nuisances and the protection of the public health in every way. The feeling in the Department has been that as the powers of the Board of Health are derived from

the Legislature, that wherever the Legislature has enacted special laws in regard to specific industries, that the Health Department will not enact special rules and regulations.

Q. Even though it has the power to do so? A. Even though it has the power, although if conditions should make it necessary, the Department would act.

Q. What do you mean by saying if conditions should make it necessary, Doctor? A. If it were shown that the public health were menaced, seriously menaced, and if the inspections that would be necessary cannot be brought about through the regular channels, then I think the Department would feel that they should take some action.

Q. If I may interrupt you a moment, I understand that your Department will not take any action with reference to bakeries because of the statute which empowers the State Labor Department with jurisdiction in regard to them. A. No; that is not entirely so, because we have taken action.

Q. I understood that unless a certain emergency arose where you think public health is in danger—— A. We would not take charge of the whole situation.

Q. Recently have you had to take charge of the bakery situation to a certain extent? A. We have made quite a number of inspections, and I have a record here if you care to have that.

Q. When did you have those inspections made? A. During 1910 and 1911.

Q. Why did you have them made? A. Some of them were made as the routine duty of the Division of Food Inspection, examining into the condition of foods and food products throughout the city. It is a rule in the Department that where foods are examined and unsatisfactory factory conditions are found in connection with the establishment where such food is handled or prepared, that the food inspectors shall report those conditions to the Department, and the Department refers them to the respective authorities. Sometimes it is a local authority, as the Tenement House Department or Building Department; sometimes it is a division in our own Department, as the Division of Inspection; sometimes it is the State authorities, as in the case of bakeries.

Q. Was there any co-operation between your Department and the Department of Labor on this bakery inspection investiga-

tion — did you consult with the Commissioner of Labor about it?

A. I did not personally. I think some of my people did. I have been trying to get in touch with the Commissioner of Labor for some time, but I do not think it was his fault I did not; I do not know that it was my fault particularly, but I have been very much engaged in other matters, and that conference has not taken place.

Q. The trouble is, Doctor, about this bakery situation as I understand it, there is a duplication of authority there which may or may not be exercised by both Departments if desired? A. There is, primarily, it is under the jurisdiction of the State Labor Department.

Q. How often have you made these inspections of bakeries, or was it just one spasmodic inspection? A. No; I would have to read you the memorandum. I cannot remember it.

Q. Surely A. (Reading memorandum:) "In the spring and early summer of 1910, inspectors of the Food Inspection Division of the Department of Health examined 444 bakeries. In the case of unsanitary conditions, reference was made to the Division of Sanitary Inspection, and as a result of their inspections, eighty-five notices were issued — that is, notices for the Board of Health; seventy references were sent to the State Department of Labor, and 86 notices and references — that is —"

Q. (Interrupting.) What do you mean by references? A. That is, in a particular establishment, the Health Department may have issued a notice to correct certain unsanitary conditions, and at the same time reference was made to the Department of Labor in respect to the same establishments. Eighty-three in other Boroughs, of which I did not have any record last night; and 120 were found in good condition, but minor nuisances found there, were abated by personal efforts.

Q. In these 120? A. In these 120. That was in the early spring of 1910. That description does not take into account the food conditions that were found there. That is, the inspectors were particularly instructed to take up the question of the exposure of the foods, especially during the summertime, to the influence of flies or vermin, and to the dust and dirt, where the counters were near open windows and near open doors. Now, in November, 1910, twenty-nine inspectors were drawn from all

divisions of the Department, and were assigned to the Division of Inspection in the Borough of Manhattan. They were supposed to examine all places where food is prepared for sale in the city of New York — that is, in that Borough. Up to November 30, 1910, 1,395 bakeries were inspected. In 311 cases, unsanitary conditions were remedied by the Department of Health, and 729 references were made to the Department of Labor from June 22 to October 19, 1911.

Q. That means, Doctor, that out of 1,395 cases, about one thousand were found requiring some remedy? A. Apparently so; yes.

Q. From June 22 to October 19, 1911, sanitary inspections of bakeries were made in all boroughs, with a total number of inspections of 1,169. Found in good sanitary conditions, or minor nuisances abated at the time by personal effort, 723; referred to the State Labor Department, 69. Notices or orders issued by the Department, 148. Since November 1, 1911, fifty bakeries had been declared to be public nuisances and ordered vacated by the Board of Health.

In respect to the special work of the Food Division in the fall of 1911, 1,138 inspections of the raw materials, eggs, flour, etc., in bakeries were examined, and 83 court actions were brought on account of unsatisfactory conditions found there. That briefly describes the work of the Department, and I would like to say this, that in working out some of these details, where a comparatively large number of inspections appear to be satisfactory, I think it is quite possible that the inspectors were not as thorough as they might have been, because their training in respect to the inspection of bakeries and the details was not sufficient to bring them in touch with the minor conditions. In other words, they were looking for gross sanitary violations and not —

Q. (Interrupting.) You mean the violations which they reported were usually very bad? A. They were, except, perhaps, in the case of the food, where they may have reported exposures.

Q. Dr. Lederle, you have heard the testimony of the last witness, Dr. Barsky? A. I have.

Q. Is any such inspection made of the bakers by your Department or anyone else? A. No, sir.

Q. Have you no means at your command for such an examination? A. No, sir.

Q. Have you no inspectors who could make such examination? A. We have inspectors who are competent to do it.

Q. Is there any reason why it should not be made by your Department? A. Why, of course, the Department could do a great many things. I do not see any more reason why the inspectors of the Department should examine the people who work in bakeshops than they should examine people who work in other shops where foods are prepared, or where foods are prepared in restaurants. It may be a good thing to do it.

Q. I do not say there is any more reason why they should be examined; I think the Commission will agree with you. A. Apparently we have not quite advanced to that point.

Q. Perhaps I might ask you here, whether you believe it is advisable to come to that? A. I think we will come to that, and I think it may be interesting to say that the first step in that direction has already been taken.

Q. What is that? A. In respect to the examination of those who are engaged in the milk industry; that is, those who come in direct contact with the milk.

Q. What has been done about that? A. That is particularly true since we have found that there are typhoid carriers. That is, there are people who years ago have had typhoid fever, and who are still carrying the germs of typhoid fever, and who are, of course, dangerous to those surrounding them, and who may infect the food they come in contact with. We have made a start in the examination of those who are producing high grades of milk, and who come in direct contact with the milk in the bottling.

Q. Tell the Commission just what you are doing in the examination of these people who handle milk? A. Well, it is not done universally. It is being started on a small scale. Of course, in the case of milk, we have the other remedy where we cannot directly supervise the production of the milk; we can compel pasteurization.

Q. Are you familiar with the report of the Commissioner of Accounts about bakeries which was published in April, 1911? A. I have seen it.

Q. What did your Department do with reference to that report? A. On June 16, 1911, I issued the following order to the sanitary superintendent in respect to bakeries: "I herewith forward two copies of the report of the Commissioner of Accounts on the unsanitary condition of bakeries. Please have an inspection made about bakeries in the city, and if any unsanitary conditions are found, have them corrected forthwith."

Q. May I ask you, Doctor, why you did not communicate with the Department of Labor with reference to that, and ask them what they had done, or did you do so? A. Why, I think some of my people did. I cannot state that I did personally.

Q. Would not that be an official communication — is not it a subject of importance enough to be an official communication? A. It would have been if I had communicated directly with them; yes.

Q. What I mean is this: The Commission in its examination into these conditions, discovered all along the line duplicate inspections. You ordered the inspection of every bakery in the city, I take it? A. Yes; in order to determine the conditions.

Q. And that, I understood you to say, was imposed upon the Labor Department by statute, and I understand you also to say that you did not have sufficient inspectors or sufficient means to do all the work you wanted to. Why, in that case, did you not communicate the matter to the Department of Labor and see that they made the necessary inspection? A. We did. We sent them references constantly. I told you of a thousand references sent as a result of those inspections.

Q. Was the inspection made by your inspectors of every bakery in the city after that? I understand you to have read the order. A. I am not sure of that. I gave you the details. I have not followed it up to see whether every bakery was inspected. I suppose some action was taken — some inspection of every bakery.

Q. Have you ever heard from the Department of Labor with reference to this inspection of bakeries, since the report of the Commissioner of Accounts? A. Have I?

Q. Yes. A. I have not personally; no.

Q. Has anyone, to your knowledge, in your Department? A. Not to my knowledge.

Q. Did you yourself make any personal inspections of bakeries? A. Very few; I did some, yes.

Q. When was that, Doctor? A. Some time, I think it was this week; the early part of this week.

Q. Have you a record of that inspection? A. I have not with me.

Q. Do you remember them? A. Not by address, no. I can give you, in general, the location.

Q. Tell me what you found? A. The inspection was made — I think it was last Tuesday night — in Brooklyn, particularly on and in the vicinity of Fulton street and Myrtle avenue. I think I had a list of about 72 bakeries. Of those 72, if I remember correctly, perhaps we found 36 open.

Q. What time of night was this? A. We started at eleven o'clock at night and got through at five in the morning.

Q. Now tell us what you found. A. I think probably 35 or 36 bakeries were inspected.

Q. Tell the Commission just what you found. A. Well, I found the sanitary conditions, as a rule, very unsatisfactory. In many places floors were in bad condition — broken, out-worn; walls and ceilings in some places were in bad condition.

Q. Dirty? A. Dirty, although some of them showed evidences of having, comparatively recently been washed. Some of the sinks were in bad condition, the plumbing of the sinks; in some cases the toilets were adjoining the bakeshops and were in bad condition. The ventilation of the places, of course, almost in every case was bad. These were cellar bakeries. In some instances these could have been very much improved if the means at hand had been made use of, that is, if the windows had been opened; but those working in these establishments seemed to keep the windows tightly closed. They seemed to be very much afraid of drafts, and in case a window pane is broken, they will even stop it up, so that they cannot get any air from that source. Some of the places were overrun with vermin.

Q. What kind of vermin there? A. Cock-roaches, water-bugs.

Q. What else did you find on your inspection? A. In a few of the places the eggs were not in as good condition as they might have been, although they were in fair condition in most of the places. I think that is, as I recall it, I have given you —

Q. Where did you get this list of places from, that you examined, and how was it made up? A. I do not really know. It was made up in the office.

Q. Did you find any people sleeping in the bakeshops? A. No; they were all at work during those hours.

Q. What was the condition of the men, the bakers themselves? A. You mean the physical condition?

Q. Physical condition, and as to cleanliness, their appearance, their clothes? A. Why, they were not particularly clean. Some of them were anything but clean.

Q. Some very dirty? A. Well, I cannot say that they were very dirty, of course, unless you consider flour on the clothes dirty.

Q. Did any of them have any diseases? A. I am not a physician and would hesitate to say —

Q. I mean did they appear to be? A. No.

Q. How about their sweating; did they all sweat a great deal? A. The place was hot, badly ventilated, and, of course, they did sweat.

Q. Then, Doctor, as I understand, you found in a majority of those cases the sanitary conditions were very bad. Did you examine the toilets also? A. Yes.

Q. How did you find those? A. Well, many of them were in bad condition.

Q. Filthy? A. Poor condition.

Q. I say, filthy? A. I do not know as I saw any of them very filthy. I did not examine all of the toilets. I had an inspector with me and he made a detailed examination. I made a general survey of the conditions.

Q. Dr. Lederle, can you tell the Commission how near the toilets were to the place where the bread was baked, in many of the cases you examined? A. They all were located differently with respect to the bakeroom. Of course, some of them are out in the yard, some of them are upstairs in the bakery proper — that is, where they sell the bread; some right next to the bakeshop and some of them were adjoining the bakeshop.

Q. Generally speaking, were the conditions such that they would stand a great deal of improvement? A. Oh, unquestionably.

Q. They would have to be very much improved? A. No question about it in my mind.

By Miss DREIER:

Q. Have you authority to close any bakeshop you find? A. Have we authority?

Q. Yes. A. I think we have, yes; we are closing some.

Q. Did you close some of these? A. I don't know whether the notices have been actually issued, because I do not think there has been a meeting of the Board. It is only through the action of the Board, as the result of a report made by the sanitary superintendent, that we can take that action, and I cannot say positively whether that has been done. I am not sure whether they have had a meeting of the Board since then, but I do not think there is any question but that quite a number of them — I won't say all of them, but quite a number of them will get a notice — probably a five-days' notice.

By Mr. ELKUS:

Q. Doctor, may I ask you why you made these inspections in the last week? A. Why?

Q. Yes. A. Simply to inform myself, personally, of the conditions.

Q. You had heard? A. (Interrupting.) I have been intending for a long time to give it some personal attention, as I do to every branch of the Department, and I had not been able to do it in the case of bakeries. I examined the reports of inspectors, the reports that had been made during the last year, and I wanted to satisfy myself whether any more drastic action should be taken, properly taken, by the Department, in respect to some of the conditions that were found.

Q. What conclusion did you reach? A. I simply did as I always do in different branches of the Department; I went out and made a personal inspection.

Q. What conclusion did you come to after your personal inspection? A. I came to the conclusion that, at any rate, of those bakeries that I saw, quite a number of them should get a very

stringent order in respect to sanitary conditions, and that should be later followed up in some way by orders relating to structural defects. Of course, our orders would be more in respect to general sanitary conditions, and perhaps specifically as to some of the plumbing features. But there are other structural defects that should be corrected, eventually.

Q. Did you find sewage pipes leaking in these bakeries, moisture from them coming down into the dough or bread? A. No; I saw nothing going into the dough or bread. Of course, there was condensation on some of the pipes, but there was not any definite evidence that it came from a leak. I should like to qualify that by saying that is from my memory. The sanitary inspector who accompanied me will probably have specific data in every one of these cases.

Q. Doctor, after your own inspection, were you satisfied with the condition of the bakeries in the city? A. Oh no, not at all.

Q. What would you say with reference to their condition, as to their requiring remedying? A. I think they require pretty drastic methods.

Q. What do you mean by that — closing up a great many of them? A. When we close an establishment, of course we give notice, and that notice may run from twenty-four hours to five days, the most effective step that the Department can take, and usually brings about a result — that is, there is an immediate cleaning up.

By Miss DREIER:

Q. Does the notice affect sanitation, or just cleanliness? A. Like scouring, for instance?

Q. Yes, or whitewash? A. These first inspections we have been making, have been simply as to what you may say were gross sanitary violations, and the cleanliness, the condition of the food products themselves, without trying to go into every step of the details.

Q. Should there be a specific standard? A. I think so; yes.

Q. Would that be under the sanitary code, or how could that be done? A. There again I would say that I think those regulations should not only apply to bakeries, but they should apply to

other places where foods are sold, and that is what we are trying to bring about. In our request for our budget for next year, I think we made that very plain, that there were 22,000 places in the city where foods are sold, and we have thirty paid inspectors which is a drop in the bucket. They cannot do it.

By Mr. ELKUS:

Q. Are these the inspectors that made the inspections of the bakeries, the thirty food inspectors? A. They made the inspection so far as food materials are concerned, but where unsanitary conditions were found outside of the actual foods, references were made to the Inspection Bureau, and these inspections were made by sanitary inspectors.

By Miss DREIER:

Q. Can you transfer your sanitary inspectors to the Food Division? A. We can in emergencies. Of course it takes them away from their work. There are 72 sanitary inspectors in the whole city, and they have a great many duties to perform. The city is divided into districts; each man has a district; we get thousands of complaints of unsanitary conditions, complaints of odors from manufacturing establishments, sewer gas, conditions of streets, and conditions of slaughter houses and manufacturing establishments of all kinds, and all kinds of nuisances, and it is the duty of those inspectors to examine the citizens' complaints. That is their first duty, because a citizen expects that he shall have prompt attention to a complaint that he sends to the Department. Now, the theory is, that when an inspector has taken care of all the specific complaints that have been sent to him respecting his own district, he is supposed to make some original inspections of the general sanitary conditions of his district. But the force has been so small that it has practically been impossible to carry that out, so that these you might say are emergencies; that is, we draw people from other parts of the Department, the same as we do in the case of outbreaks of infectious diseases in the city; we are very often compelled to draw upon the inspectors who are working in the schools and take them away from that

work. Of course that is not right, and disorganizes the system. So it is with this work, that we should have a sufficient corps of sanitary inspectors to do that work, and a corps of food inspectors sufficiently large to take care of the food situation, and we have not got either.

Q. How many would you need for both food inspectors and sanitary inspectors? A. If I remember, I think we asked for sixteen more sanitary inspectors. Our reports showed that to thoroughly inspect all the places where foods are sold in the city, 22,000 places, would require 182 inspectors, but at the meeting of the Budget Committee of the Board of Estimate we went over this matter very thoroughly, and the Committee tentatively allowed twenty-five more food inspectors, and I think it was six or seven sanitary inspectors, and a number of sanitary patrolmen, who also do the minor inspections. The question of bakeries came up at that time, and we felt that if we had that increase — while, of course, it was not ideal, and would not take the place of the 182 — we could do a lot of new work.

Q. Would you control the bakeries, for instance? A. Could we?

Q. Yes. A. I do not think we should. If I may be permitted to give an expression of opinion, I think that the labor law with reference to the inspection of bakeries should be amended by excluding New York city. Then the Health Department should obtain sufficient help to handle this situation properly. Then we will make regulations for bakeries and other places where foods are sold, and there cannot be any question of authority. I think that is the only remedy.

Q. You think the Health Department should have exclusive jurisdiction of bakeries in the city of New York? A. I do not think there is any question about it.

Q. Let me ask you some other questions about your suggestions or recommendations. Would you prohibit cellar bakeries or not? A. Well, until it comes actually before me, I do not know as I should express a definite opinion, but in a general way, from what I have seen of cellar bakeries, I question very much whether they have been kept in sanitary condition.

Q. You think that is impossible? A. I should say there are certain recommendations.

Q. Should there be a standard of light and air and ventilation in bakeries? A. I think as much as should be for any manufacturing establishment, not particularly bakeries.

Q. How about the licensing of bakeries, would you be favorable to that? A. I think that where you have a sufficient corps of inspectors it may be proper to license them, but I do not believe in issuing a lot of licenses and then being unable to determine whether they carry out the provisions of the license. Although the moral effect of a license is good, I rather hesitate about recommending licensing of industries unless the proper provisions have been made for inspection, to see that they live up, in general, to the license.

Q. Would you recommend registration? A. Well, I am working on a plan now for something of that kind for all food places. That would include bakeries, butcher shops and confectionery establishments.

Q. Of course, you realize that a baker may open a shop and your inspectors may not know of it for months after he has been doing business? A. I think that is perfectly true under our present system, but if we had a sufficient number of men it would be the duty of every district man to know of the location of every place in his district where foods are prepared. I would not limit it to bakeries, I would include restaurants too, because these conditions that you have heard described by some of the previous witnesses may obtain in other places or industries.

Q. Would your health inspectors be able to investigate the safety of manufactories as to fire-escape exits at the same time? A. I do not think that work should be put on them.

Q. If you had enough of them, in other words, it would avoid duplication of inspection? A. No, it would be an utter impossibility. You could not expect one inspector to do all those things, to be familiar with all the conditions arising.

Q. Well, the Department of Labor people do it with one inspector; the Tenement House Department people do it; that is a fact, is it not? A. I do not know whether they do, or not.

Q. How often would you say that a bakery should be inspected? A. I should think that after they had them in good condition, good sanitary condition and thoroughly understood the rules and

regulations, I should think a good careful inspection once a month would be sufficient.

Q. You spoke of the food establishments. I want to take up with you the jurisdiction of the Department over other manufacturing establishments. You have jurisdiction of some sort, do you not? Do you exercise that, or do you leave it to the Labor Department? A. That is, I think left principally to the Labor Department. There are some cases of nuisances for instance, that would be investigated in manufacturing establishments.

Q. Is it fair to say, with reference to all other manufacturing establishments, other than food product establishments, that you do not do anything with regard to them unless a specific complaint is made? A. No, we do not make a systematic inspection. Some of them, of course, are included under the term "offensive trades," like slaughter houses, and they would be inspected.

Q. Are you in favor of leaving to the State Department of Labor, the investigation of manufacturing establishments in the city, or do you think your Department should have any jurisdiction over them? A. At the present time, I do not think any change should be made, except in the cases of places where food is especially prepared.

Q. Now, with reference to where food is prepared, or food products are marketed, what does your Department do? What inspections do you make of them? A. In the first place, the foods themselves are inspected, and the general sanitary condition, though not as thoroughly as we should like to do it.

Q. You mean you have not got the force of men? A. We have not got the force to do it.

Q. How many more inspectors would you need to inspect both bakeries and food shops adequately? A. Well, by estimating for the 22,000 places my estimate was 182 inspectors. Of course, that is on a somewhat ideal basis, and I would like to mention here an instance that I came on, which is of great importance in this connection — a new influence, two new influences. One is public sentiment and the other is that public sentiment as reflected by the Magistrates. The co-operation that we are getting, especially in the Borough of Manhattan, from the Magis-

trates Court, has made a great difference in the work of the Department. We are able to get convictions where it was impossible to get them before. The courts have taken a great interest in the question of poor food and that makes it possible to do more work with the ten inspectors than, with a lack of interest, we could do with possibly thirty or forty. I think that is a great factor in our work.

Q. How many inspectors would you need to make what you think would be a fair investigation of the bakeries and food shops? A. Investigation is one thing, and constant inspection is another.

Q. I am referring to a constant inspection. A. I said to the Committee of the Board of Estimate, that if they would allow those twenty-five inspectors that they agreed upon, we thought we could, with the thirty that we had, make a very excellent showing.

Q. With the thirty that you had? A. With the thirty that we had and twenty-five more, that would make fifty-five inspectors of food.

Q. Twenty-five more men, that would be at the cost of about \$30,000 a year? A. They get \$1,200 a year, and that would be \$28,000 a year.

Of course, with the authority of the Department that work would go on pretty rapidly. That is, if the Department decided that after notice they would vacate places, great improvement would follow very quickly.

Q. Your Department also has jurisdiction of the question of granting certificates to children, allowing them to work? A. It has, yes.

Q. Is there any examination made of those children to determine whether or not they are physically fit to work? A. There is an examination made by a physician, but I think a very superficial one.

Q. That is what I was coming to; do you favor a more rigid examination for children between the prescribed ages, of working? Are you in favor of changing the present arrangement? A. I have not given any serious consideration to the question of changing it. As to the question of whether there should be a physical examination, of course I am in favor of all those improvements.

Q. What reason is there why a physical examination is not made now? A. I suppose they follow the statute pretty carefully.

Q. What is the statute; does the statute prohibit it? A. No, I do not think it prohibits it.

Q. Does not the statute read that if in the opinion of the physician the child is competent to work, a certificate shall be granted? Does not that expressly permit or authorize a physical examination? A. I do not claim we have not the authority to do it.

Q. What is the reason why it is not done—that is what I asked? A. I do not believe there is any specific direction in the statute.

Q. Except that the doctor must certify that in his opinion the child is able to do work? A. There are a great many things that we would like to do in the Department. We have asked for over a million dollars over for next year for new activities.

Q. How much is your appropriation now? A. About two and three-quarter millions.

Q. And you asked for three and three-quarter millions? A. More than that, we asked for one million four hundred thousand dollars more.

Q. Did you get it? A. No, we did not get it. Of course, the question of the budget has not been definitely settled.

Q. Would you recommend that the child be examined physically, before it be granted a certificate to work? Further than that, are you in favor of periodical examination of children, during the prescribed ages? A. I have not any definite opinion to give on that.

Q. Have you any opinion, Doctor, on the question of restricting the employment of children in certain occupations? Of course, now they can go to work in any place as long as they get the Health Department certificate. A. I think there is room for great improvement there.

Q. Do you think something should be done along that line? A. I do, yes.

Q. It has been suggested here, that examinations of the children in public schools should be made at the time of their entry and once a year thereafter, charts should be kept of these examinations, and that thereafter, if one of these children applied for

a certificate to be permitted to work, the chart could be used and these records kept in each case. Now, take it up on the first part. Would you favor the examination of each child as it entered a public school? A. I certainly would.

Q. In private schools as well, for that matter? A. I certainly would. You must remember that the Health Department is making a physical examination of school children at the present time and has been for some years.

Q. And are these records kept? A. Oh, yes.

Q. Do they make these examinations monthly? A. No, not of every child. It is in connection with the medical inspection as to contagious diseases.

Q. That is an examination to discover diseased children? A. No, an examination for physical deformities.

Q. You do not examine every child? A. We try to.

Q. That is a superficial examination at best? A. We try to examine every child.

Q. To determine as to the condition of the teeth and eyes and hearing? A. The teeth and eyes.

Q. Suppose you find they are below the standard, their eyes are defective, you tell them they ought to wear glasses? A. We notify their parents to that effect.

Q. In writing? A. They get a card, yes.

Q. And how about the teeth? A. The teeth we have in co-operation with one of the private philanthropies, a dental clinic that was established last year and was very successful. If the budget remains as it left the Committee of the Board of Estimate and passes the Board of Aldermen, we will establish, I think it is seven dental clinics for the coming year, and three medical clinics, so that it appears that it will be possible for the Department to develop along those lines in the coming year, further than they have done. Those reforms have been started.

Q. We are very glad to know it. You recognize that the mortality among working people is larger than it ought to be, or that it would be under proper working conditions? A. I think the mortality among all people is larger than it ought to be.

Q. Have you any suggestions to make as to what conditions can be remedied so as to lessen the mortality among working people? A. That is rather a broad question.

Q. Yes, it is a broad question, but we want to get your general views on the whole subject. A. Well, we are trying to, by improving the milk supply, and the city is improving the water supply.

Q. Is there anything else you would suggest about that? A. Of course, the sanitary conditions, the surroundings in a particular work — that should be maintained; that I understand is done through the work of the State Inspectors. The general improvement of the food supplies will improve the condition of the workmen.

By Miss DREIER:

Q. We asked you before, I think, about a physical examination for bakers and I think you stated that there was no more necessity of examining bakers than men who were engaged in the manufacture of other food products? A. I think I would begin with the cooks first, both private and public.

Q. You do think it would be advisable to make a physical examination of the workers employed in the manufacture of food stuffs? A. Yes, but the question is what is going to be done with them; evidently it would exclude a lot of people.

Q. How many extra inspectors would that take, have you any idea? A. That would take a very large force. We do not think we have a large enough force now to look after infectious diseases.

By Mr. ELKUS:

Q. It has been shown by witnesses here, that there is duplication of inspection as well as duplication of authority over manufacturing establishments, and you evidenced one case yourself in the matter of a bakery. That has extended in a great many ways, and sometimes duplication exists not only twice but by three or four different Departments. Have you any suggestion to make as to how that duplication of inspection could be avoided or lessened? A. I have not give that matter any thought, Mr. Elkus.

Q. I understand your Department, as you pointed out, is very much in need of more money. We are informed that the Department maintains a laboratory where the tests of sputum are made for all physicians without charge. Is that an expensive establishment? A. I have not the data here. We do that. I think it is one of the best things we have ever established.

Q. Everybody agrees on that. But could they be made self-supporting in some way, by making those who could afford it agree to pay for the examination? A. I do not know whether that could be made self-supporting. I suppose some income would be derived, but, of course, the feeling of the Department is that we want to encourage those examinations. It is extremely valuable information that the Department gets, when they send in, for instance, infected sputum. It is practically like a case of tuberculosis that we have a record of, and I think probably, that was one of the greatest factors in making the work of the department in respect to tuberculosis successful. I do not know how many we could get if we tried to compete with outside private laboratories and charged for it. We get a very, very large number now, and the city is doing it free, and we think that is a function that the city should exercise, in cases of typhoid, diphtheria, malaria and tuberculosis.

Q. Can you give the Commission any idea, approximately, of what this laboratory costs? A. No, I have not that data here. I will be very glad to send it to you.

Q. Will you do that, Doctor? A. Yes, I will.

Q. Who makes the inspections in this laboratory, physicians or young men, or who? A. In what laboratory?

Q. This laboratory, to determine about contagious diseases? A. You mean the diagnosis laboratory?

Q. Yes. A. The final examinations are made by a physician. The preliminary work is done by laborers, and some of the laymen become very expert in this work.

Q. How many people are employed there—you will send me that information? A. Yes, it is quite a large laboratory.

Q. Doctor, is there anything further you would like to speak of to the Commission, or recommend or suggest to them? A. No, I think I have covered the ground pretty well. I feel pretty strongly on that bakery situation.

Q. You feel pretty certain that that should be remedied? A. I feel strongly that something should be done in order to bring about a remedy.

By Miss DREIER:

Q. In Chicago, I believe, they have abolished cellar bakeries?

A. I believe they have, yes.

Q. And does not that work well? A. As far as I know it works very well. I think it has given great satisfaction. To me, that is a matter of detail. I think we ought to work out some general plan of solution, a system of inspection. There will not be any trouble about working out the details, and the department will help as well as they can under present conditions, but I do not think that conditions are at all satisfactory. For instance, as I said before, I do not think the department should be called upon to make specific regulations regarding bakeries while the State regulations exist. As far as sanitary conditions are concerned we will help out as far as it is within our power to do so, but I do not think the conditions are satisfactory as far as the carrying out of the work is concerned.

Q. Would you advise putting the examination of all workers where food products are manufactured, not only in New York city, but New York State, in charge of a Board of Health? A. I have not gone into the matter in respect to other cities.

By Assemblyman SMITH:

Q. Is there any ordinance or health regulation against exposing the bread stuff for sale? A. There is.

Q. It was brought out in the testimony here that in a great many cellar bakeries, particularly on the East Side, that the bread was baked in the cellar and exposed for sale on the cellar steps? A. I think that is quite possible. I took personally a great interest in the exposure of food products, and we sent out notices to the push-cart people and the retail grocers, and our inspectors have made arrests for exposures. That was one feature of the work. On that feature of the work we do not get the necessary assistance from the courts, especially outside of Manhattan. There is a great deal of exposure of food stuffs, especially candies, in the downtown districts, and where the candies were found covered with dirt and dust we confiscated them, and that broke up that practice. That was around

Wall street and Broad street, in the financial section. In the early summer we called upon the Police Department to aid us in suppressing this practice, and for some time that was done. Of course, it would be easy for them to do it, because the patrolmen have a particular district, and, walking back and forth, they can see immediately where there are any violations, and also a great many arrests were made through the inspectors. We propose to keep up that work until there shall be no exposure of food products of that class in the city.

By Assemblyman SMITH:

Q. According to the testimony this morning, a great many of the East Side bakeries that are in cellars have no salesroom, and the selling is done entirely on the street, and the bakery consists, in some instances, of one room only, in which the bread is baked, and it is sold right there. If there were a law against exposing bread on the sidewalks and it was vigorously enforced, that sort of a bakery could not last. A. Unless they sold their products elsewhere.

Q. These bakeries sell at retail; that would compel them to admit the purchaser into the room where the bread is baked? A. It is a roaming population, stands, push carts, small stores, and it takes a large force to really carry out successfully the regulations.

Q. Why could not that be made the duty of the patrolman, in the case of candy? A. It is his duty now. You will find there is a general order of the Police Commissioner requiring them to carry out that section of the sanitary code.

By Miss DREIER:

Q. Do you get as active co-operation as you should get? A. Of course, lately, the police have been very busy at other things, and those violations will crop up very quickly. I noticed, myself, in my tour through the East Side, that just a week makes a great difference.

Mr. ELKUS: Could you not call the attention of the Police Department to the abuses that have been testified to here and ask for a very careful enforcement of the law with reference to them?

The WITNESS: Yes.

By Assemblyman SMITH:

Q. Did you make any request in 1910 for additional inspectors to the Board of Estimate? A. Yes.

Q. Was it denied? A. I cannot say off hand, because there are so many activities in the department. They were not all denied. We did get more money and we started new activities, but I am quite sure that I got no addition to the sanitary inspectors and food inspectors.

Q. Has it been your experience that it has been rather difficult to impress upon the Board of Estimate in the time you have to do it the necessity for more help? A. There is always the cry of economy, you know, and all the departments need more money to extend their activities, and it is a question of judgment as to how that money should be distributed.

Q. If we should by legislative enactment give you absolute jurisdiction over the bakeries in New York, would you consider it to be a violation of the home rule principle, if we named in the act the number of inspectors you should have? A. I think it would be unnecessary.

Q. Unnecessary? A. Yes. To name it in the act. I think if you will repeal that law and the Board of Estimate will give us money, and if that should be done this year, or the early part of next year, and we could go and ask for a bond issue for this particular purpose, and show the necessity for it, perhaps we can get it. People who are interested in special things, you know, very often get them.

Q. When the Fire Commissioner attempted to get an appropriation for the Bureau of Fire Prevention, the Board of Estimate offered him only eight inspectors to organize the Bureau of Fire Prevention. A great deal of public criticism was made because the appropriation was to take effect on the first of January, and so allow the best part of this year to go by without making any appropriation. In view of that, do you not think that if this grave duty was imposed on the Commissioner of Health that the law ought to take care in some way that he gets the necessary funds to carry it out? A. It would be the same as it is now, I believe that, but you know, after all, the trials and tribulations in making up the budget. Of course, there are thousands of

items in every department. Where one is interested in a specific thing, and puts the case strongly, you may be able to gain your point. I suppose, after all, that would be a question of public sentiment. It is a large problem, and would depend on public sentiment.

By Miss DREIER:

Q. How many inspectors for bakeries would you need? A. I do not think we would divide the inspectors up into different industries. We could not do that in our work, that would be duplication, because in any one block a man would have bakeries and grocery stores and butcher shops and ice cream places and candy factories, and we would not want a separate inspector for the candy industry and another for the butcher shop. A man would have to inspect all those places on every block, but of course in some industries the inspection would not be necessary perhaps as often as in the case of bakeries.

Q. In prosecuting push cart men who are not carrying out the orders, have you been able to reach any wholesale push cart men, or only the small ones? A. We notify them. They generally have a leader who keeps them informed in respect to ordinances of the city, and sanitary ordinances, and we usually notify them as to the action we are going to take, and he spreads the information among them. When it comes to arrest, why, of course, they pick up those who are committing the violation.

Q. You cannot go behind the man who has the push cart? A. We have got to take the man who is actually in charge of the push cart, but as in the case of the milk dealers, they may have a hundred drivers, and if we find bad milk on a wagon, we have to arrest the driver, we cannot arrest the owner, because we cannot successfully bring a case against him.

Q. Is there any remedy for that? A. That is the proof the courts require of us.

By Assemblyman SMITH:

Q. In the case of the peddler with the exposed candy, have the magistrates summary jurisdiction, or are they held for Special

Session? A. In the case of the candy men they are either fined or discharged, summary jurisdiction.

Q. In the event of the arrest of a baker for a violation of the sanitary code, that is a misdemeanor and they are held for Special Sessions? A. They are held for Special Sessions.

Q. Would you be in favor of giving the magistrate summary jurisdiction in order that the case may be disposed of immediately?

A. We have made such recommendations. We have a working agreement with the magistrates as to which cases are to be disposed of and which are to be sent to Special Sessions. I could not tell you just what that embraces, that is within the law, but there are cases where the department has agreed to have the magistrate settle the cases.

Q. Not if it is a misdemeanor? A. That is my impression.

Q. In a case here yesterday it was testified before the Commission that an order was issued by the Factory Commissioner some time in April. By the time the man came up in Special Sessions it was October, and the court suspended sentence on his promise to remedy conditions under direction of the court four months later? A. That was a bail case, I suppose.

Q. The man was undoubtedly bailed out.

Mr. ELKUS: And the bail would have been \$100, probably.

By Assemblyman SMITH:

Q. Probably, if he had an establishment of his own, they may have accepted his own bail? A. Of course, in our department, if a notice is not complied with within a reasonable time we then issue a public nuisance order and give the man from 24 hours to five days. If it is not then complied with we can order the premises vacated.

Q. That would be more effective than arresting him? A. That is very effective and the result is that the thousands of cases that the department used to have pending have dropped down, because these notices are now complied with.

Q. Have you any recollection of the Health Department having ever exercised that authority with regard to manufacturing establishments where there was discovered an unsanitary condi-

tion, other than a place for the manufacture of food products?

A. Some years ago we issued a public nuisance order on one of the gas companies in 110th street.

Q. That was for burning soft coal? A. No, for creating a nuisance, on account of the escape of gas through the manufacturing process.

By Mr. ELKUS:

Q. That was because of annoyance to the neighbors around? A. That was a public nuisance, and orders have been issued against a great many manufacturing establishments, — slaughter houses and other establishments. We issue public nuisance orders of every kind.

Q. You mean you issue them where it is not altogether a public nuisance, but it is a nuisance to probably one hundred people in the place itself? A. No, I do not think so. I do not remember any such. Of course our complaints usually come from the outside, where there are odors caused in the process of manufacturing, and where it is a question of cinders and dust or smoke.

Q. Would you be able to say, off-hand, as to whether or not, in the last year or two back, the Commissioner of Labor has acquainted your department at any time with the state of facts that constituted a menace to the health of the people working in any given factory? A. I cannot say. I will look that up.

Mr. ELKUS: Will you investigate it and let us have the complaints made to you by the Department of Labor in the last three years.

The WITNESS: The last three years.

Assemblyman SMITH: It might be as well to know, also, what action was taken.

Mr. ELKUS: And also what action was taken upon them. We are very much obliged to you.

Witness excused.

MARIE KASTEN, a witness, being first duly sworn, testified as follows:

By Mr. SHIENTAG:

Q. Where do you live? A. Milwaukee, Wisconsin.

Q. And you are temporarily here in New York? A. Yes.

Q. Have you been working for this Commission? A. Yes, I have.

Q. As an inspector? A. I have.

Q. For how long? A. Two weeks.

Q. During the past two weeks? A. Not this last week, but the two weeks before.

Q. Have you made inspections of certain manufacturing establishments under the direction of this Commission? A. I made an investigation of candy manufacturing and human hair.

Q. Candy manufacturies and human hair in New York city, in the Borough of Manhattan? A. Yes.

Q. How many candy factories and human hair factories have you investigated? A. I investigated fourteen candy factories and 64 human hair factories.

Q. And where were the fourteen candy factories located generally, in stores or cellars or lofts or what? A. I found three large factories — and the others —

Q. In basements underneath the ground? A. Yes.

Q. Now, will you take up some of the cases that you examined and take up one of the large ones and one of the cellars, we will say, and tell the Commissioners, in your own way, what you found on your examination? A. Of the large factories I found one that was very bad.

Q. Which was that? A. The Manhattan Chocolate Company, 602 Fifty-fifth street.

Q. That is a large one? A. Yes.

Q. How many people were employed there? A. There were 70 in all.

Q. Men and women? A. Forty women.

Q. How many men? A. Thirty men.

Q. Any children? A. No.

Q. Now, tell us just what you found there. A. It is a very old building, it is in very bad repair, and is very dirty, and the

toilets are in very bad condition. The waste barrels in the room were in bad condition, and there were flies around them and around the sinks where the workers washed their hands. There was one towel for every fifteen workmen, and it was changed only three times a week. The toilets were unventilated and very dirty in the shops, just divided off by a partition. The clothes of the workmen were very dirty, and their hands, also. The proprietor said that a factory inspector had been around a few months before and had made many criticisms; said he had been there before and had made many criticisms of general sanitary conditions, but that he had not made any changes.

Q. What conditions did you find there? A. It was very dirty. It was an old place. He made that an excuse, because he said it was impossible to keep the place clean.

Q. When you say it was very dirty, you will have to go into details? A. The floor was dirty.

Q. What was it dirty with? A. It was dirty with refuse and rags. It had not been cleaned for a long time, and had an accumulation of dirt.

Q. It had not been cleaned for how long, did he tell you? A. He said it was cleaned once a week, but I do not think it was scrubbed. It was probably just swept out dry.

Q. What kind of candy did they make there? A. They made different kinds, the cheaper grade of candies, candy of the cheapest kinds.

Q. And did the women and the children use their hands? A. Yes.

Q. Dip them into the chocolate? A. Yes.

Q. Did you notice whether they were clean or not? A. They were not, and their clothes were very dirty.

Q. Did they wear their street clothes? A. Yes, they did.

Q. Tell us how dirty they were? A. There was not any attempt at washing their hands; that is, there was no suitable provision. There was only one towel for every fifteen, and it was changed only three times a week.

Q. Only one towel for every fifteen persons, and it was changed three times a week? A. In the packing room the candy was lying around uncovered, and the waste barrels in this room were

in extremely bad condition. There were flies around them and around the sink, where the workers were supposed to wash, and the toilet in this room was also in bad condition.

Q. It opened in the room? A. No, it was divided off by a partition.

Q. Were there odors? A. Yes, odors, and it was unventilated.

Q. What was the condition of the toilet, clean or not? A. Fairly clean. But it was a very dark place; no light.

Q. What else did you find out in that room in this factory? A. Well, it was in generally unsanitary condition, generally very dirty.

Q. How about eating their lunches? Did they eat their lunches in the same place? A. They ate their lunch in the same room; there was no provision made for a separate lunch room; I suppose some of them went out.

Q. They ate their lunch where the candy was made? A. Yes,

Q. On the same tables? A. On the same tables.

Q. How about the utensils, were they clean or not? A. No, they were not. The pans were not clean and the tables were not clean.

Q. They were dirty? A. They were dirty.

Q. Had not been cleaned for a long time? A. Had not been washed off for a long time.

Q. And was the ventilation good or bad? A. They had no special devices for ventilating, they had windows.

Q. Were they opened or closed? A. They were open. I was there on a warm day and they were open. I do not know what they would do in the winter.

Q. Did the owner tell you what directions the factory inspector had spoken to him about, what the factory inspector had told him to do? A. No, he did not.

Q. He said he had not done those things and did not intend to do them? A. He was not at all aggressive about it.

Q. He simply said that he could not or would not do it? A. Yes.

Q. Take one of the cellar places that you examined, where they make candy in the cellar, and tell us about that. Give us the place. A. I took 20 blocks on Third avenue and I took

all the small retail confectioners, and all of them made their candy in one room—in a room under the shop, three of them had no windows at all. All of them were insufficiently lighted. One, by the name of Hahn, 256 Third avenue, is probably typical. The proprietor was the only worker. It was unventilated and damp and the dishes and pans were standing around uncovered, not clean. The table was not clean, and the floor was very dirty and the sugar was standing in an uncovered barrel, and the conditions were generally very dirty and unsanitary.

Q. Was the man dirty himself? A. Yes.

Q. Was there a toilet down there? A. No, the toilet was on the floor above.

Q. You say the conditions were very, very bad? A. Yes.

Q. And is that typical of the other places on Third avenue, or are some of them better and some of them worse? A. Some are better and some worse, but most of them are unventilated and not clean.

Q. They all needed a cleaning out? A. Yes.

Q. Now, Miss Kasten, you took the places at random? A. Yes.

Q. You took these places on Third avenue and you walked into any one of them at random? A. Yes.

Q. And those were the conditions that you found? A. Yes.

Q. Now, as to the human hair industry, you examined how many places? A. Sixty-four.

Q. And where did you get those sixty-four places from? A. That was a list that had been used by the Bureau of Labor in previous inspections, and some of these places I just happened to see and went into.

Q. Were these separate places, or were they located in tenement houses? A. The human hair factories are divided into three divisions, some right in the tenements, and the workers work right in the family living rooms.

Q. They work right in the living room? A. Yes, and if they have any disease that is likely to get into the hair. Then there are the converted tenements, where they do the preparing and dyeing, and go through the preparation of the cheapest hair; then there are the loft buildings, where they make the better hair.

These are better laid out. Of course, the conditions are much better in the places where they do the manufacturing in lofts, there is no dyeing and no bleaching; they have none of that dirty work, and the conditions are very good.

Q. I would like you to take one of those human hair works, where they manufacture it right in the house, and tell us about that? A. At 276 Madison street, the man is named Blaustein.

Q. How many were there in the factory? A. Just three, I think. The mother and the baby and father, and the mother was the only one who was working. Business is bad now, so they do not press in all members of the family. I saw no little children working at all. Just this woman working there. She was only preparing the hair, did not do any of the dirty work.

Q. What is the process of preparing the hair? A. Making it up into switches.

Q. Did they do that in the kitchen? A. No, they did it in the front living room, and she had the baby carriage standing in the front room, and the next room was the kitchen.

Q. Were there places where the workroom was divided off? A. There were — the converted tenements.

Q. Tell us about them? A. On the lower East Side they are uniformly bad.

Q. Uniformly what? A. Uniformly bad.

Q. What do you mean by that? A. Very bad condition. They are very dirty, and no attempt has been made to keep them clean. They say it is impossible to do it. They work in these great quantities of hair, and the combings gather on the floor and there are great heaps of dust. You can always tell when you get into a place where they are in this hair business by the hair on the stairs all the way down to the street.

Q. You can always tell it by the trail of hair down to the street? A. Yes.

Q. Is it your opinion that they are cleaned up every night or not? A. No, sir, I do not think they are.

Q. At how long intervals do you think they are cleaned? A. It varies in different places. In the worst places, they put the refuse into boxes and when it gets so that they cannot stand it any longer, they put them out into the street to be collected. Of course, there is a great deal of refuse in the business.

Q. In this place you were telling me about in the converted tenement house, where they were doing the dyeing, how many people were working, men or women, or both? A. There were six in this place on Third avenue, men.

Q. Tell us about the sanitary conditions in the place where the six men were? A. The conditions vary, of course, according to the process. In the preparing room they are better than in the drying and bleaching rooms.

Q. Will you describe the conditions in that particular establishment, where the six men were employed? A. That is the preparing room and the walls and ceiling were in bad repair. All of those houses were in bad repair, and the floors were very dirty. There they had no receptacle for the rubbish, and it was lying around in great quantities. They had two windows which were sufficient for the size of the shop, and the only light they had was gas.

Q. Are there many women employed in the converted tenements? A. They use women generally in making up the switches, not for the dyeing and bleaching.

Q. The dyeing and bleaching is sometimes done in the same room? A. In general it is a different room, because that requires a concrete floor.

Q. But in the lofts the dyeing and bleaching is all done in the same room? A. Yes.

Q. And the cleaning and preparation? A. Yes.

Q. Have you noticed any odors? A. The odors are very strong. They use ammonia for cleaning the hair, and the odor of that is extremely strong, and they use muriatic acid and peroxide, and the odor from the wet hair is very disagreeable.

Q. Those odors and fumes diffuse throughout the entire room? A. Yes, it was so strong it was almost impossible to stand it.

Q. There was no attempt made to correct those odors or fumes by any forced system of ventilation? A. No especial system in the converted tenements.

Q. How about water closets? A. Some had water closets in the rear and the rest of them generally on the first floor.

Q. What was the condition of them as to cleanliness? A. Three of them were very bad, but the worst conditions were the shops themselves.

Q. In the lofts? A. No, in the rooms where the work was done, the converted tenements.

By Miss DREIER:

Q. Did you find any children around the tenements? A. No. There probably would be at another season, but business had been very bad.

Q. How did the workers look, from the point of view of both health and cleanliness; did they look as though they were strong? A. They did not look sick at all.

Witness excused.

ELIZABETH W. WETTINGFELD, a witness, being first duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Are you a graduate of any university? A. Yes. A graduate of Syracuse University.

Q. Have you a degree? A. Yes, the degree of Bachelor of Philosophy.

Q. Bachelor of Philosophy? A. Yes.

Q. Have you made some investigations for this Commission? A. Yes, I have.

Q. How long have you been making such investigations, during what period? A. From October 9th to November 9th, 1911.

Q. One month? A. Yes.

Q. And what industries or trades did you examine? A. I examined the paper box industry, and the flower and feather industry.

Q. And how many establishments did you examine? A. Of the paper box industry I examined 54 and of the flower and feather industry, I examined 79.

Q. I do not want to go into specific instances as to the paper box industry, because we have some proof before us about that; just state generally what you discovered in the paper box industry.

A. Generally in the paper box industry — you do not want me to describe the industry?

Q. We know what it is. A. The main trouble seems to be confusion in piling up the finished product. When the boxes come from the stripping machine and the stamping machines, they are piled up in heaps haphazard, and they shut out the light, and they are put in the passageways or in the way of the exits to the fire escapes, but as a rule I found the sanitary conditions were good, because it usually takes a large loft or a building of two or three stories to carry on the paper box industry, and that means a large space. They cannot do it in a small room.

Q. Now take the millinery industry and tell us about that. We want you to go into that more particularly. Have you any record of its being done in tenement houses? A. Yes.

Q. Did you find any cases of its being done in tenement houses? A. Yes, I have.

Q. Tell us what cases you have found. A. Here is one place at 304 East 107th street, where they make willow plumes. It is on the third floor of a five-story tenement house, and there are eight women working there. He uses a stove for heating purposes and gas for lighting. It is a double tenement, and what we would call the parlor of the tenement is used for making the willow plumes.

Q. Does the proprietor live in this apartment himself? A. I saw a bed there, one of these cheap folding beds with a mattress, and there was a door leading from this room to where there were living apartments. This room in which they were working was about 12 by 16 by 12 feet high.

Q. How many people were in it? A. Eight women and they were making willow plumes, knotting in the barbs on the willows — I do not know just how to explain that to make it clear. They get these feathers already dried from some dealer or importer and they split them so as to make them more flexible. Then they hold it over the steam cooker so as to make it more pliable, then the girls sit around with the barbs—you might call them flues or barbs—the fuzzy part of the feather. They get 12 cents for knotting on this flue.

Q. How much do they earn in a day? A. It takes them a day sometimes to make one feather. They probably earn about \$1; they can earn about \$7 a week by working very fast.

Q. How many hours? A. From 8 in the morning until 6 at night.

Q. At \$7 a week? A. Yes. They usually have the windows closed; they usually sit huddled up close together, very close. I think if I made a test by carbon dioxide, I would not be surprised if there were 25 or 30 parts for 10,000 in volume.

Q. Are there any toilets connected with this room? A. Yes, there was a toilet there, right off of this room.

Q. Was it clean or not? A. Yes it was clean, had a window in it; a modern toilet.

Q. Do you know whether or not it is a violation of the law to permit that work to be done in a tenement house? A. Yes, I think I do. I think section 100 says that no outside worker can be permitted above the first floor of tenement houses except in dressmaking establishments. For flowers and feathers they are not allowed to work above the second floor.

Q. How long has this business been carried on there? A. I did not ask that, I do not know.

Q. Apparently it had been there for some time? A. Yes, I think so.

Q. Did you find any other establishments like that? A. Yes, on the same block down further, the same style of building, 314 East 107th street. There were twelve women and two men working there.

Q. On what floor? A. That was on the fourth floor of a five-story tenement house.

Q. How many families were there living in this tenement house, this last one you are speaking about — four families on a floor, or eight? A. It is a double tenement with two families on a floor, about ten families.

Q. Children? A. There were no children under fourteen.

Q. You mean working? A. Yes.

Q. But there were plenty of children in the house? A. Yes.

Q. Were there children over fourteen working there? A. There were fourteen women.

Q. How large was the room in which they were working? A. Just like the other — 12 by 15 by 12.

Q. Did they all sit huddled up together? A. They had to sit up near the window to get all the light possible.

Q. What were they doing there? A. They were working on the willow plumes.

Q. What were the conditions there? A. The ceiling and walls were papered with colored wall paper and the floor was full of loose dust that comes off from the handling of these feathers.

Q. When had it been cleaned last? A. It probably had been swept that week; it was not a dirty place. The toilet was clean.

Q. Was it unsanitary? A. No, it was a modern toilet, a good flush in it, had a window in it.

Q. The trouble is the business was carried on in a tenement house? A. That is one thing. And then the overcrowding. There ought to be 500 cubic feet of air space per person, and there was not enough air space there for fourteen people.

Q. How did you find out these people were working there? A. I went along and saw a sign; out on a big sign it said "Willow Plumes," and I went in and found what the conditions were.

Q. You had not any trouble in finding these places when you walked along? A. No, I had no trouble. There are lots of them, and that was only one block.

Q. I mean on your inspections you did not have any difficulty in finding these places? A. You could see they were there.

Q. You live in New York? A. I live in the suburbs, I live at Corona, Long Island.

Q. I thought you lived in Syracuse? A. I only went to Syracuse to college. I do not live there. I lived here before.

Q. What I was trying to bring out is, that it is perfectly easy to find these places. All you have to do is to use your eyes? A. That is all.

Q. Did you see any more? A. I saw plenty of them, in stores and on the first floors.

Q. In stores and on the first floors — what were the conditions there? A. In one store I came upon, I do not remember the name, there were eight girls huddled up together, near a window. They had a show window in the front, a window in the back, and there was a toilet and a sink there and it was dusty, looked like a month's accumulation of dirt. Had a gas light.

Q. What was the trouble with that? A. There was no air, because they had the window tightly closed and they had the front door closed and it was just stagnant air, and the smell was bad. The smell of the hair helped to vitiate the air.

Q. Those are cases that you tell us are typical of the others that you examined. A. Yes.

Q. And they all need remedying, need a cleaning up? A. Yes, in my opinion they do.

Witness excused.

ABRAHAM RIEGER, a witness, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Doctor, where do you live and where is your office? A. My office is at 308 East Broadway.

Q. That is where you live? A. That is where I live.

Q. Are you a physician. A. I am a physician, yes sir.

Q. How long have you been? A. Seven years.

Q. And from what college were you graduated? A. The New York Homeopathic Medical College and Hospital.

Q. Did you make an investigation of people employed in bakeries for this Commission? A. Yes, sir, I did.

Q. How many inspections did you make? A. I have inspected probably over 100 shops.

Q. How many men? A. About 200, an average of two people in each shop.

Q. An average of how many? A. About two people in each shop.

Q. Now, Doctor, you have prepared written histories which you have filed with the Commission of your investigations? A. Yes, sir.

Q. I want you to take up a few cases and describe what you found as to skin diseases. A. This man, the name is M. S., nationality Austrian, occupation helper, I found that his general appearance was rather anemic. He was pale, sallow, and membranes of his eyes were affected. He complained of pus oozing from them in the morning; his eyes were congested, and on looking over his body, I found a number of spots caused by injury, prob-

ably contusions, from moving around in an irregular position and so on.

Q. Did he have any skin disease? A. This man did not have any skin disease, besides those.

Q. What is the next one? A. The next man is D. G. He was a bench man. I found him likewise anemic, in fact, a great majority of them were sallow and pale. As to personal cleanliness, he was fair. He had an eruption of what is called acne pustules on the face and chest and back of the thorax. And from some of these pimples there was pus oozing out.

Q. And he was working in the dough? A. All these I examined were actually engaged in the work. He told me that he gets a fresh crop of these pustules every time that he goes out into the open after working at the oven. He was not only a bench man, but he also had to do with the putting in and taking out of loaves. After working there, at the oven, and when he came out into the cold, he would be apt to get a fresh crop of these pustules.

The next case here is F. W., an Austrian. He was a foreman; his family history shows that his father died of pneumonia. His previous history shows that he suffered from indigestion. In general his appearance was anemic. He told me that he suffered from chronic indigestion, and an examination of his skin showed that he had eczema in patches on his face, and patches on his arms and various parts of the body.

Q. This man with the eczema worked with his hands and arms? A. Yes, and the distribution of the eczema would be universal.

Q. Where did he work? A. He was the foreman. He worked at Avenue D, No. 24. He was working at night. This was a night examination.

Q. What is the next one? A. He showed that his veins were markedly dilated, varicose veins of the legs; his eyes were also congested. His eczema is probably secondary to a chronic urticaria, which is aggravated by working near the oven.

Q. And what is the next one? A. The next one is S. P., an Italian, special work, benchman. That is a man who works at the bench.

Q. What was the matter with him? A. I found that he was suffering from a disease which we call *cicosis barbae*, ring worm of the beard.

Q. Is that contagious? A. Yes. He told me that he had this for one week, and it was the result of getting shaved.

Q. The result of shaving, and that is contagious? A. It is a contagious disease, yes. He was also suffering from eye strain.

Q. Now take up the next one. A. G. R., an Italian, a helper. His appearance was very pale, almost sallow, personal cleanliness, poor. He also had patches on the face, and he had a disease which affects the chest and causes difficulty in breathing. He was forty-three years of age. He was also very deaf, had been for the past five years.

Q. That would not interfere with his being a good baker? A. No.

Q. What is the next one. A. The next card I have here is G. S., an Italian. He was the owner of the shop, but was working. He cheerfully submitted to an examination. He suffered from acne pustules.

Q. What about his body? A. That is a condition that does not affect the body, it only affects the face and the chest, front and back. In ordinary cases these do not go to pustules, but where they are working under unsanitary conditions they become pustules. In this case the matter was oozing out very freely.

Q. Now, these cases that you examined were taken at random in this city, and there was no selection of any particular cases? A. No selection.

Q. And these are the general conditions that you observed? A. These are all the conditions that I found.

Mr. ELKUS: Any questions by the Commission?

By Miss DREIER:

Q. What are the hours of labor? A. The hours of labor vary even in union shops, where they are supposed to work ten hours. Some work twelve and thirteen, and in non-union shops they work as many as fourteen hours. A number of the non-union shops I have visited work seven days a week, and they never have any vacation.

Q. Did you notice any difference in the physical cleanliness of the bakeries where the bakers worked longer hours compared with

those where they worked shorter hours? A. I do not know. That point I did not make any note of. On the question of cleanliness, generally, they were poor. I found that particularly so in non-union shops, because in union shops they seemed to be accustomed to a certain sort of supervision, and that has a good moral effect, if nothing more.

Q. Do you think, if proper lavatories were placed in the bakeries, that that would induce to cleanliness? A. I found the men were very docile, they seemed to be willing to submit to an examination. If any system of supervision were instituted, I think that would help. Of course, we might not obtain ideal conditions, but we certainly would obtain very improved conditions in certain things, — of course, not immediately. If it is simply suggested to them, I think they will be ready enough to understand it and change their habits. My impression was that if there was proper supervision that would be effective to a large degree.

Q. You mean instructing the men? A. Yes. I think it was a good example to these people, being interested in unionism. They knew that they would have to submit to certain regulations and they would see just as readily that they would have to submit to certain sanitary regulations as well as to the others.

By Assemblyman SMITH:

Q. From your recollection, Doctor, can you tell just how many places there were where the product of the small bakeries was sold on the street? A. I cannot say I made any note of that. I knew there were inspectors to pay particular attention to that phase of the thing, and I was intent upon examining as many cases as I could, while the inspector was doing his particular work.

Q. In the case of cellar bakeries you could not go into the cellar without seeing the bread exposed on the steps? A. Yes, in some places.

Q. In all places? A. No, I would not say that.

Q. In a quarter of those that you called upon? A. Not as far as I remember, not a quarter of them.

Q. Well, some places? A. Besides, the time that we made our investigation was not the selling or the buying time. I came into

places at 12 o'clock and 1 o'clock — 12 o'clock p. m. and 1 o'clock a. m. and 11 o'clock p. m.

Miss DREIER: What is your opinion as to abolishing cellar bakeries?

The WITNESS: My opinion is very decidedly that that would be a splendid thing to abolish them, because they are universally unsanitary; it is simply impossible to make them otherwise, I think.

Assemblyman PHILLIPS: If a man was willing to start a bakery in a cellar, it is likely that he would be careless in other matters, sanitary matters?

The WITNESS: I think these people look at this as a business enterprise; they look at the money part of it, and unless influenced to do otherwise, are apt to become lax about sanitary conditions.

Assemblyman SMITH: Can you suggest any way of improving sanitary conditions that would not entail an increase in the cost of production?

The WITNESS: I suppose it would increase the cost of the production.

Assemblyman PHILLIPS: Do you know whether they give a larger loaf than the other bakeries?

The WITNESS: I do not know much about the buying and selling end of it.

LESLIE A. WARE, a witness, first duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Where do you live and what is your business? A. I live No. 600 West 107th street.

Q. East 107th street? A. West 107th street.

Q. And where is your bakery? A. 885 Columbus avenue, at 104th street, and 2373 Seventh avenue.

Q. You have attended here of your own volition to present to the Commission certain facts with regard to the bakery business?

A. Mr. Hill and myself, yes.

Q. Tell the Commission what you want to say to them. A. I want to say that the kind of bakeries that I have heard described here to-day are a kind that I know nothing about. Yet, perhaps, my bakery might be termed a cellar bakery. I do not exactly understand what you mean by a cellar bakery.

Q. Where is your bakery located; how is it located? A. It is located in what I call the basement.

Q. How many feet is it below the level of the sidewalk? A. Well, the ceiling comes above the level of the sidewalk, that is, the curb, but it is below the sidewalk, as you might say.

Q. And is there any ventilation in it? A. Oh, yes, sir.

Q. And any windows? A. Windows in the rear, and two doors in the front.

Q. And to get into the bakery you go down steps from the outside? A. You go down steps from the outside, but there is an areaway before you enter the bakery under the walk.

Q. Tell us how many men you employ? A. Five in the day and four men at night.

Q. Well, you have heard these conditions described here. Is your bakery not like that? A. Nothing like that; no, sir.

Q. How much do you pay your men? A. From \$22 to \$25, a foreman.

Q. How much an ordinary workman? A. Well, for my second, third and fourth hands, they all vary.

Q. What is the lowest? A. The lowest that I pay is \$12 a week.

Q. That is for the ordinary workman? A. That is the last hand.

Q. How many hours do they work? A. Ten hours, sometimes; in the summer time much less than that.

Q. Seven days in the week, or six? A. Six.

Q. Now, Mr. Ware, do you provide clothes for your men to wear? A. They provide their own clothes.

Q. They wear different clothes in the shop than they do outside? A. They have their lockers to put their clothes in when they are through work, and when they come in they change their clothes from the street.

Q. How often do they get other clothes? A. That I could not tell you. I know they have new clothes two or three times a week.

Q. Do you know that, or is that a guess? A. I know that. I don't say coat and whole suit, but I know that they have different clothes, part of them.

Q. Have you any washing facilities for them there? A. Yes.

Q. What have you got? A. A sink.

Q. One sink? A. One sink.

Q. Is that in the bake shop? A. In the bake shop.

Q. Right in the shop where the dough is made, where the bread is made? A. Well, it is in the back part of the shop.

Q. Do you provide towels? A. They provide their own towels.

Q. They have to provide their own towels? A. And take them with them; each one has his own towel.

Q. Each man has to have his own towel? A. Which is supposed to be, as I understand it, more sanitary than to have a towel for all, for every one.

Q. You don't supply them, that is what I was trying to get at. A. I do not.

Q. Where are the toilets? A. Outside, open from the outside.

Q. Are they connected with the room? A. No, sir.

Q. Where the bread is baked? A. No, sir.

Q. Where are they, in the yard? A. No, they are in an alleyway, underneath the sidewalk.

Q. They are in front of the bake shop? A. In front of the bake shop. The entrance is not from the bake shop.

Q. Where is the entrance from? A. From the outside, by a door.

Q. The men have to go out in an alleyway that leads up to the street to go into the toilet? A. Yes.

Q. That is where they have to go? A. Yes.

Q. Do you provide soap, or does each man supply his own soap? A. I provide soap, certainly.

Q. You do? A. Yes.

Q. Is there anything else you want to say, Mr. Ware? A. I want to say that a bakery that conducts their business in what you term a cellar can keep it just as clean as though they were in any other part of a building. I believe it depends entirely upon the person who is running the place.

Q. You heard Commissioner Lederle's testimony? A. I did.

Q. You don't agree with him? A. In some cases I do. He did not say a place could not be kept clean in a basement.

Q. Has your place been inspected by the Board of Health? A. It has.

Q. When was it inspected? A. This month.

Q. Did they make any recommendations to you or suggestions? A. No, the inspector looked the place over and found no fault with it.

Q. When was it inspected before this month, never? A. Many times the inspectors have come in when I don't know anything about it.

Q. When was there an inspection before this month? A. I had three inspectors coming from the Board of Health, the Department of Labor and the Tenement House Department.

Q. When was it inspected by the Board of Health before this month? A. I could not tell you the date.

Q. When was it inspected by the Labor Department last? A. It is inspected every month or so, to my knowledge, by some inspector. I don't always know what department they come from.

Q. Your building has been inspected once a month? A. Once a month on an average, from the different departments.

Q. By some department? A. I should say that was so, yes.

Q. Do you know of any other bakery that is inspected once a month? A. I don't say once a month every month in the year.

Q. No, of course not, but on the average? A. Yes, once a month on the average.

Q. Do you know of any other bakery that is inspected once a month on the average? A. I don't know.

Q. Have you ever known of any that has been inspected once a month on an average? A. Oh, I have heard them say, some-

times, that two or three inspectors come in in one day, just as it happens, from the different departments.

Q. You heard that? A. Yes.

Q. Anything else? A. I want to say one more thing. I would like to just state a question: Which would you people like to buy, a loaf of bread that was baked in what you term a basement bakery, under proper conditions, clean, and brought up and sold off our counter; or a loaf of bread delivered from a wholesale place and left in a bag or box outside a delicatessen or grocery store, or other place, before the places are opened, and the grocery man, or the man in charge of the store, comes and takes that bread in and puts it on his counter.

I would like to ask you which would be the more sanitary bread, a loaf like that, you know, left in a bag standing by the door, and plenty of ways for it to get all kinds of dirt, and become unclean.

Q. What I would say in answer to that is, that I would rather have one baked in my own home, from what we have heard here.

A. But which would you want to have?

Q. Have you ever had your men inspected by a doctor, to find out whether they have sickness of some kind, consumption, or anything of that sort. or skin diseases? A I have.

Q. When? A. I could not tell you when; quite some time back, to my knowledge.

Q. Were they sick then? A. Not to my knowledge.

Q. How long ago was it? A. I should say it was a year or so.

(Witness excused.)

Mr. FRANK P. HILL: I would only like to say, Mr. Chairman, that I think the impression that has been made before the Committee does an injustice to, I think I may safely say, a majority of the retail bakers in the city of New York. I believe that the most of them keep good shops. In fact, I gather from Commissioner Lederle's testimony that conditions were fair in many of the shops and were poor in many of the shops, but I believe that in the majority of cases the conditions are fair, and proprietors

desire to keep them fair or improve them. I know, for my own part, if there is anything wrong in my shop, that I would be perfectly delighted to have the Commissioner of Health inform me as to what is wrong, and I will do everything to correct it. I want the public to come into my shop and know just what the conditions are and to be perfectly satisfied.

Mr. ELKUS: Where is your shop?

Mr. HILL: On Lenox avenue, between 125th and 126th street. Now, it seems to be the purpose of counsel to be sure that nothing good gets on the record in favor of the baker.

Mr. ELKUS: Oh, no.

Mr. HILL: That is the way it seems to me. That is my impression. I may be wrong.

Mr. ELKUS: You are entirely wrong.

Mr. HILL: Thank you, sir. I hope I am.

Now, personally, speaking for myself, there has been a great deal in the papers about dirty bake shops, and I believe deservedly so, in many cases, but the trouble is it is so presented before the Commission, and in the papers, as to appear that there are no clean shops. That is wrong.

Assemblyman PHILLIPS: I take it that these investigations of conditions have been limited to certain kinds of shops, where the conditions are bad.

Mr. ELKUS: Is your bake shop underneath a store?

Mr. HILL: Yes, and necessarily most of them in New York city must be underneath the store. The rent is very high, and you can't rent a place above ground in New York city to establish a bakery. If you can't have a bake shop in a basement in New York city, you can't have a bake shop here, that is all, unless people will pay prohibitive prices for bread; and we hear a great

deal now about the high cost of living. People want everything as cheap as they can get them, but they want good things.

Assemblyman SMITH: What rent do you pay in your store, if I am not asking a leading question?

Mr. HILL: I don't mind saying that I pay \$100 per month for the whole thing.

Assemblyman SMITH: You have a big store.

Mr. HILL: It is one hundred by eighty feet.

Assemblyman SMITH: Suppose you were forced to take the second floor for a bakery.

Mr. HILL: You could not get it in nine-tenths of the stores in the city. You could get in a tenement house if you wanted an upper floor.

Mr. ELKUS: They could not get in any tenement house, anyhow. Are you in a tenement house?

Mr. HILL: I am not in a tenement house. I am in a building at the corner of 126th street and Lenox avenue.

Mr. ELKUS: You have a good location?

Mr. HILL: Yes, sir; but I believe there are others just as good, and better. The impression has been made here that all of them are bad. Now, that is wrong, and a great injustice to the baker.

Mr. ELKUS: Now, have you ever seen any of the bakeries described here?

Mr. HILL: No, I have never seen any bakery as bad as the most of those described.

Mr. ELKUS: Is there any association of baker owners or proprietors?

Mr. HILL: Several of them.

Mr. ELKUS: They are for what purpose?

Mr. HILL: Why, to ——

Mr. ELKUS: For the purpose of mutual improvement of their establishments?

Mr. HILL: For the purpose of mutual improvement, mutual advantage, not at all for the purpose of controlling prices.

Mr. ELKUS: No, I don't mean that. What I was leading up to was, why couldn't the owners, the bakery proprietors, do a good deal of work themselves to improve the conditions which have been described here, and which must, as you say, exist. Nobody claims that they exist in every shop.

Mr. HILL: What I will say is, the organization which I belong to is an organization of retail bakers. I am not speaking for them here at all. I appear in my individual capacity. I want to say in our organization there are probably fifty members, those are but a drop in the bucket.

Mr. ELKUS: I understood you had a larger organization.

Mr. HILL: There are others which number two or three hundred, perhaps.

Mr. ELKUS: Why couldn't there be an organization of the Master Bakers, as there is of Master Plumbers, an association which could itself bring about a good many reforms which are needed. I suppose you suffer from unfair competition, — you find it difficult to compete with the men who do not make the things as clean as you do.

Mr. HILL: Of course you can't make clean things for the same price that you make unclean things. That question was brought out by the answers given here. I employ myself an extra man all the time for the purpose of keeping things clean, that is all he does, and I pay him for it.

Furthermore, it was said that most of the bakery products are mixed by hand. I think that the shop where goods are mixed by hand are in a very large minority. I think that many bakeries use appliances. I myself have several. I think that many of the bakers use a divider to cut the rolls into pieces. The only handling that is done is simply in distributing them. They, of course, must be distributed.

Now, it has been said here, that the bakeshops are warm. I would like to have the Committee understand that a bakeshop has to be warm. If you have a draft through a bakeshop, and the air is cold, and your bread is raising, why, the air will immediately form a crust over that soft dough, and the bread cannot raise. It must be kept warm or else it can't raise.

But at the same time, that doesn't say that the air has to be impure. The air may be warm and still be pure. I think you will agree that we have to keep our shops warm. In some places we have to resort to ventilation by artificial means. Some have fans. I know several shops ventilated by an exhaust fan.

It is necessary, of course, in a shop located in a basement, to burn gas the greater part of the time, but I don't know that that is particularly unsanitary. Some have electric lights. I have electric lights in my bakeshop.

Mr. ELKUS: You have a model shop, I understand?

Mr. HILL: Well, I don't have a better shop than many others in my line. I will say very frankly that there are shops better than mine, but I am making an honest effort to have a clean shop, and I think it is wrong that the sessions of this Commission close without any mention of the shops which are clean, but simply mentioning those which are filthy, and where no effort is made to keep them clean. That is one of the questions we talk about, and how we can improve the conditions in our trade, how we can improve the machinery, how we can improve the methods, and everything about the shop. I thank you.

Miss DREIER: You spoke of your bakery being underneath the shop. That does not necessarily mean a cellar, you know. What we call a cellar bakery is below the level of the street.

Mr. HILL: Now, I think with that definition of a cellar bakery, you will find there are very few cellar bakeries. Now, my shop—the ceiling of my bakeshop might not be more than eighteen inches above the curb level of the street. It is slightly above the curb level, but it is ventilated by electric fans, and it is also lighted by electricity, and the ceiling is eleven feet high.

Assemblyman SMITH: I think you will find, Mr. Hill, from the testimony taken here, that it is quite likely that our inspectors were looking for some of the worst samples, and if we can succeed in improving the worst samples, if we can bring them all up to the standard that you have, it is right that we should look at the worst of them.

Mr. HILL: Personally, as a baker, I should be very glad to see every bakery inspected and a permit issued in the same fashion as that pursued with the milkmen.

Mr. ELKUS: I am very glad to have you say that.

Mr. HILL: Personally, I believe in that.

Mr. ELKUS: You mean every establishment?

Mr. HILL: I mean, I should like to have every bakery inspected at least once a month, and a permit issued from some competent Department, either the Labor Department, or the Health Department, it makes no difference to me which Department inspects my bakery, but I believe it should be done, and I think it could be done just as effectively by the Labor Department, but I am perfectly willing that the Health Department should have control of it.

Mr. ELKUS: It doesn't make any difference to you who does the inspecting, which Department has control of it?

Mr. HILL: I believe it would be the best thing for the business, if it was done. It would be a fine thing for the business, if the public could know that they were getting goods that were thoroughly clean, and which had been inspected by the proper Department.

Mr. ELKUS: You believe in the physical examination of the bakers themselves?

Mr. HILL: Well, I see no objection to it. I would be perfectly willing to employ men only who were certified by the Department of Health, so far as I am convinced. It wouldn't make any difference to me, but it was spoken here in the testimony, about a man having rheumatism. That doesn't affect his ability to act as a baker.

Mr. ELKUS: How about having skin disease?

Mr. HILL: Why, I don't think a man having skin disease ought to work in a bakery, I will say very frankly.

Assemblyman PHILLIPS: I suppose there are people in this city, and especially in the locality where the bakers are located, which have been referred to in the testimony, who would buy bread, knowing that the fellow who made it had skin disease, if they could get it cheaper than from a good, clean baker.

Mr. HILL: There are many people who are indifferent and simply look for the price and not the quality, that is to say, they want quantity and not quality, especially in that neighborhood.

Assemblyman SMITH: If you made in your bakery shop, a loaf of rye bread the size that they make in Essex street, you would have to get fifteen cents for it?

Mr. HILL: I am not familiar with what they make over there.

Assemblyman SMITH: They sell them for six.

Mr. ELKUS: I don't suppose you make a loaf of bread for six cents?

Mr. HILL: Yes, we have them for five. We give a fair loaf of bread for five cents.

Miss DREIER: Do you really think that a cellar bakery, generally speaking, could be made so clean as to be perfectly sanitary for the people who work there and the people who buy the bread?

Mr. HILL: I believe that most of them could. Some could not, and others could. Those that could not, should not be allowed. Most of them could. I believe that a shop can be ventliated artificially so that it will be sanitary for any kind of employment. I believe that a cellar bakery can be ventilated and be made as clean as a bakery in any other situation. I don't see why a man can't clean a shop just as well in the basement as on the top floor, and I think that ventilation is just as necessary upstairs as in the basement.

Cleanliness rests, first, with the employer running the business. If he wants to keep it up-to-date, he will do it, whether it is inspected or not, but there are men who will not do that, unless they are inspected, and therefore you must have inspection.

I think that a man who does keep his shop clean has no fear of inspection, and it is just to him that they should be inspected, and placed on a basis where people will have confidence in their cleanliness. I would like to have the public sure that when they go into a shop they are buying a loaf of bread that is clean. I believe that would be to the advantage of the baking trade. At the same time, I don't believe that the conditions are anything like as bad as the facts brought out here would be apt to lead some people to believe. They are not all bad. There are some good ones, and I believe that the good ones vastly outweigh the bad ones.

Assemblyman SMITH: We will take care of the good and the bad.

Mr. HILL: Thank you.

Mr. ELKUS: Shall we adjourn now?

Assemblyman SMITH: The Commission stands in recess until the 27th day of November, in the city of Buffalo.

Whereupon at 1:47 P. M., the Commission adjourned to meet November 27th, in the city of Buffalo, New York.

**MINUTES OF THE HEARING OF THE NEW YORK
STATE FACTORY INVESTIGATING COMMIS-
SION, HELD IN THE CITY HALL,
CITY OF BUFFALO
AT 10 A. M.**

November 27th, 1911.

Present:

Assemblyman ALFRED E. SMITH (*Vice Chairman*),
Assemblyman C. W. PHILLIPS,
Miss MARY E. DREIER,
Senator C. M. HAMILTON,
Assemblyman EDWARD D. JACKSON.

Appearances:

ABRAM I. ELKUS, Esq., *Counsel for the Commission.*

The Commission was called to order by the Vice-Chairman.

The VICE-CHAIRMAN: This Commission, appointed pursuant to the provisions of Chapter 561, of the laws of 1911, is a Commission to investigate the conditions under which manufacture is conducted in cities of the first and second class in this State.

The Commission is very glad to come to the city of Buffalo, the second great city of our State, and would very much like to hear from the Mayor of the city.

Address by HON. LOUIS P. FUHRMANN, Mayor of the City of Buffalo.

*Mr. Chairman, Members of the Investigating Commission,
Ladies and Gentlemen:*

I am not here this morning to make a lengthy address upon any subject whatsoever. I am here in response to an invitation to say a few remarks on the occasion of the first public hearing on Factory Investigation, which I am informed has ever been held

in this city. First of all, it is in order to say a word of approval for those who are interesting themselves in a subject that is so deeply vital to the health and to the safety of our industrial workers. Nobody knows better than I do the importance to the city, and state, and nation of doing everything that is possible to improve the conditions under which thousands and tens of thousands of our people live and toil. I can think of no cause that is more humane than this self same one which this Commission is considering and promoting. What I am saying here to-day is not upon the theory that I am more public spirited than other men. It is said simply because I, like every right-minded citizen, feel for those who have to engage in hazardous callings, who take their life and their health in their hands in their struggle to work out their economic destiny.

I have been a worker all my life, and I would feel that I was going back on myself if I did not come here this morning and show by my presence the sympathy and appreciation, not only for you, but for the thousands and tens of thousands of workers of the world who need and who are entitled to an intelligent and an enlightened presentation of their claims upon human society.

On behalf of the city of Buffalo, four hundred and twenty-five thousand of us more or less, I want to thank this Commission for the good work they are doing in our city to-day, and I wish to further assure them that they have the sympathy and co-operation of every patriotic Buffalonian. I thank you.

The VICE-CHAIRMAN: The Honorable Abram I. Elkus, the counsel to the Commission, and the man who has directed its operation since its inception, will reply to the Mayor.

Mr. ELKUS: Mr. Chairman and members of the Commission, and Mr. Mayor.

On behalf of the Commission, I desire to extend to the Mayor our most heartfelt thanks, for not only his very cordial words of welcome, but his very sincere words of appreciation of the work which has been done by the Commission, and which is now being done by it. At the outset we desire also to thank not only the Mayor, but all the city officials of Buffalo for their most cordial co-operation with the Commission in this preliminary work. We have been

met by every official on every hand, by every citizen whom we have approached, not only with offers of help and assistance, but with a sympathy with the aims and objects of the work of the Commission, which has been most encouraging.

It is our regret, Mr. Chairman and Mr. Mayor, that time, which presses on us so heavily, permits us only a one-day session in this city. We feel after our preliminary investigations that we could well spend two or three days or even a week here, but under the provisions of the Act to which you have referred, we must report to the Legislature by February next, and we have much more to do in all of the cities of the State which we intend to visit and investigate, and therefore are required to hurry on, and thus can only spend one day here.

I desire to say a word or two about the object and scope of the Commission, and a few words about what has already been directly and indirectly accomplished by it. In the first place, your distinguished Mayor referred to the fact that there are tens of thousands of workers employed in factories. Let me correct him and say that in the State of New York to-day there are nearly one million men, women and children employed in the 45,000 factories throughout the cities of the State, and that this Commission deals not alone with the welfare, but with the very existence and the very life of those 1,000,000 of our fellow citizens.

It seems sad to say that it requires some great catastrophe or some awful happening which shocks the conscience of the people and arouses their activity to an investigation of this kind. Unfortunately, the city of New York six months ago, witnessed the most awful catastrophe among working people, when over 140 persons lost their lives in the Triangle Waist factory's fire. That aroused the Legislature, and many public-spirited citizens to the dangers which surround those who worked in factories and factory buildings, and this investigation was ordered by the Legislature, not alone into the safety of buildings because of fire, not alone to determine what measures could be taken to prevent loss of life by fire, but also to inquire into what perhaps is far more important and is still a higher work, and that is the conditions, the daily conditions, the hourly conditions which surround the factory worker; to find out and ascertain the hours of work, the conditions under which they

work, the surroundings, the cleanliness, the dust, the dirt, noise, the light, the ventilation and all those things which I venture to say under present conditions in some other factories of the State do more to add to the death list than even such horrible catastrophes as the fire to which I referred. We are engaged, Mr. Chairman, in a word, in the problem of the conservation of human life. We have daily read in this State about the conservation of the forests, the conservation of the waters, the conservation of our natural industries, but the duty of this Commission and the work of this Commission is a far higher and a far greater conservation, not only of life but health, of the long life, of the extent of life and of the proper life of those who work in its factories.

I have thus outlined in a word the work the Commission is to do. Now, since the Commission started its labors in the earlier part of October, the direct results have been wonderful. In one department of the State there had been prior to the beginning of the sessions of the Commission but 41 inspections of factories of a certain kind. Since that time, within the one month the Commission has held sessions, there have been over 400 inspections of factories. Of course, the Commission didn't order those inspections. They had no power to, even if they wanted to, but that has been the indirect result, one indirect result of the work of the Commission; and those who read the daily papers have found by reading them, that all over the State, and particularly in the great cities, bake shops were closed; they found other factories cleaned up; they found the ventilation in others improved, they find the sanitary appliances in others changed, all because of the work of this Commission, of what has been done indirectly by showing these facts to the broad light of day. I may say, in passing, that some of the worst conditions have been shown in those factories which produce food products. If any of those here have followed the testimony, they would not eagerly wait for the breakfast rolls to come before them in the morning. The cake which comes with afternoon tea would not be nearly as welcome as we think it is now, if they could read, as we have had shown to us, the conditions and the surroundings under which those things are made. If all the ladies and children who indulge so much in candy could have heard as we have the horrible conditions and the horrible methods

which surround the manufacturer of that delicious product, I don't think any of them would like to eat any candy for at least a week. But Mr. Chairman, while I have spoken of the increased inspections because of the publicity and the work of the Commission undoubtedly, this Commission is not here for the purpose of creating or causing additional inspections. They are but temporary means of improvement. The Commission's work is to design a permanent end, and that permanent end is not alone that the conditions of life in factory buildings, because of a sudden catastrophe like a fire, should be made better, but so as to enable the working people to live better lives, to live healthier lives, to live longer lives, and thus redound to the benefit of the entire community. It is a fact that while this may be an expense to the State and an expense to the individual in the first instance, it is proven and it is conceded that every dollar of this expense, if we put it purely upon a monetary basis, redounds dollar for dollar and a hundred-fold dollar for dollar to the benefit of the whole State and everybody in it.

Now, Mr. Chairman, we will proceed, if you will. The first witness will be Miss Pike.

The VICE-CHAIRMAN: Before the Commission engages in the examination of witnesses I would like to speak to the audience. If there are any persons in the room who have not been subpoenaed but who desire to be heard, we will be obliged to them if they will come forward and give their names to the secretary, Mr. Tierney.

VIOLET PIKE, called as a witness, being duly sworn, testified as follows:

Examination by Mr. ELKUS:

Q. Miss Pike, will you give your full name? A. Violet Pike.

Q. And are you a graduate of any institution? A. Graduate of Vassar College.

Q. When did you graduate? A. 1907.

Q. And have you been engaged in working for the Factory Commission? A. I have, sir.

Q. In what capacity? A. As an inspector and investigator.

Q. How long have you worked as an inspector for the Commission? A. About six weeks.

Q. What kind of factories have you inspected? A. I have inspected paper box factories, human hair factories, candy factories, meat packing factories and factories for meat packing purposes.

Q. What factories have you inspected in the city of Buffalo? A. The city of Buffalo I inspected the paper box and meat packing factories and candy factories and rag picking shops.

Q. And during what time have you made these investigations in Buffalo? A. Within ten days.

Q. You yourself have personally gone to the factories and ascertained for yourself, with your own eyes, the conditions about which I am going to ask you? A. Yes.

Q. Miss Pike, have you made a study of factory workers and factory conditions for some years past? A. Yes, I have been for some years past very much interested in factory workers and factory conditions.

Q. Now, will you begin please, with the meat packing factories in Buffalo, and tell us your work and investigation? A. The factory where I made the first inspection and where I spent considerable time was the factory conducted by the Dold Company.

Q. Where is that located? A. 745 William street.

Q. You made very careful notes of your examination of the factory? A. I did.

Q. Would you like to refer to them in testifying? A. Yes, sir.

Q. Will you state to the Commission just what you found with reference first as to how many men, women and children were working there and what they were doing? A. I did not visit the entire factory; I visited simply the parts of the factory employing women, or women and men together, and it took me probably three hours to make the inspection. The Dold Company employs about one thousand workers, and from 100 to 150 women. Those are the nearest figures I could get, even the time-keeper being unable to tell me the number of women employed, because they were not distinguished on the rolls.

Q. What is that? A. They did not distinguish between men and women on the pay roll. Dold employed between ten and twelve hundred employees.

The buildings of the Dold Company are various sized, from one story to five stories in height. One of the buildings is extremely old and ramshackle. I was conducted over part of the factory by the Fire Supervisor, the Fire Marshal. He told me that they were old buildings, and had been conducted as packing factories from the time they were constructed.

The floors of this building are wood, and in one of the rooms I found, where eighteen or twenty people were gathered, at least half an inch of water covering the floor.

Q. You mean that the water was on the floor half an inch deep?

A. In certain parts.

Q. And were the people standing in this water? A. The people were standing in this water.

Q. And was that an ordinary condition? A. Ordinary in that it was not drained off, and no one said it was anything unusual.

Q. What room was that? A. That condition existed in three rooms; the pickling room, in the sausage making room and I will have to call it what I understood to be a pork-trimming room. In the pork-trimming room it did not exist to such an extent.

Q. That applies to the sausage room and the pickling room?

A. Around the sausage room and the pork trimming.

Q. What is that floor? A. In the pork-trimming room the carcasses of pork are slung down on slides and cut up, and in that room about 75 people are working and about 25 of them are women. The men do a good deal of the work, that is, they put the meat through very swift moving machines. Very often the men's hands or fingers are cut or hurt in this work because the work is speeded up in order for the men to earn more wages. The women stand at tables below the men and receive the small pieces of meat as they come, and trim them.

The floors were slimy, running with water; water was not actually running there, but the slime and grease were very thick so that a foothold was hardly possible.

In fact, two or three times the floors were so wet and so slimy that I nearly slipped. The women where the floors were wet wore rubber boots, and heavy men's boots, and some of the women were standing on barrel tops wherever they could find them in order to keep out of the wet.

Q. Where does the water come from, Miss Pike, in these rooms?
A. Some of it, I suppose, is from the meat, and in some of the rooms they have a hose that they turn on and off again, in order to clean the floor.

Q. But the condition of the room, I suppose, is due to the condition of the floor, it does not drain off? A. It does not drain off; some of the floors were drained, but it left the floors slimy.

Q. You say the men frequently lose their fingers due to getting them caught in the machine, because the machine worked so quickly? A. So I was told.

Q. Did they tell you how often they lose their fingers? A. No. I got that information from the firm manager, an employee of the company.

Q. Now, go on and describe the other room — the sausage room.
A. Well, in the sausage room, the condition of the floor was worse than in the pork-trimming room. That is to say, there was more water in spots than the other, and the work is extremely disagreeable and dirty. All done by women and men working together.

Q. What do they do? A. The sausage is put into a machine, in the top, and is then scraped out by a sort of top, and they simply tie the sausages up very rapidly as they come through from this top. The women are wonderfully expert, and are very rapid, but I found it was very dirty and disagreeable work. The women are paid small wages, that wage being the same as the men's. They do their work side by side — piece work — and the women have to keep up with the men.

Q. Is that very dirty or clean? A. Extremely filthy.

Q. What do you mean by extremely filthy? What kind of dirt is present? A. Well, sometimes we find refuse, pieces of meat which they throw away and discard. You will understand just exactly what it came from — the floors are just simply impossible to stand on.

Q. So dirty? A. So covered.

Q. And that is in the room in which the sausage is tied up, put in skins and made ready for the market? A. Yes.

Q. How is this condition to be avoided and guarded against?
A. I should think it would be possible to avoid it, if there were tiled floors, something of that kind. I am not sufficiently trained

to say whether that should be done. The floors should be thoroughly drained each day to take the water off. They should be drained very carefully in order to remove the slime that is on the floor. The stuff is not taken away. Moreover, if you have the place cleaned out two or three times daily it is all right, as they do in certain places.

Q. You mean that they would have to clean the place out two or three times a day in order to get rid of it? A. Yes, sir.

Dr. FRONCZAK (Commissioner of Health of the city of Buffalo): In some of them you say they are cleaned two or three times?

The WITNESS: I do not say so, but that was my idea.

Dr. FRONCZAK: You never saw it yourself?

The WITNESS: It is possible, in my opinion.

Dr. FRONCZAK: You believe it could be avoided by cleaning it two or three times, and having tiled floors?

The WITNESS: I wouldn't say so, because you see I am not an expert.

Dr. FRONCZAK: That is, you think that is the only way that it would be possible?

The WITNESS: Yes.

By Mr. ELKUS:

Q. Now, Miss Pike, go on and tell us the rest of your investigation. You have told us about the sausage room, and have told us about the pork-trimming room, have you. A. Yes, sir.

Q. Now, tell us about the pickling room. A. In the pickling room it is practically the same as the sausage room. The work is not as dirty in character. The stuff on the floor is simply water and brine. It is not slimy or necessarily disagreeable, but at the same time this water does stand on the floor and the workers have to stand there. It does not seem to drain off.

Q. Now, you have described those rooms, and the conditions. Now, will you tell us what you found was the reason for it? A. I would like to say a word about the arrangement of the toilets in that factory. In parts of it the workers have to go from one floor to another. They have to go along a gallery and down outside stairs and over the roof of another building, in order to change their clothes or get rid of some of the dirt that has collected, or to go to the toilets. It seems to me that that is a rather unfortunate arrangement.

Q. You mean they have to go outside the building? A. They have to go outside the building and quite a distance in the open air.

Q. Now, did you examine the toilets yourself? A. Yes, sir.

Q. How did you find them? A. They are in fair condition, they are quite light and airy.

Q. Go ahead, Miss Pike. A. There are two rooms in this establishment that have no ventilation at all, that is to say, they have no windows.

Q. What rooms are those? A. One room is the egg candling room, that is where the eggs are examined for spots and packed for the market, and in this room about eighteen girls work.

Q. How old are these girls? A. Well, most of them are, I should say, around twenty or twenty-five. There are one or two girls there that might be under age.

Q. And you say there are no windows in that room at all? A. There are no windows in that room at all.

Q. Is the light artificial? A. Yes. The floors even in this room are sweaty and damp, and the room was apparently not heated, it was very chilly, and the girls were wearing coats or sweaters while they did their work.

Q. How did the room get any air at all? A. There are two small flues cut in the wall, two very small flues—one on the two sides of the wall.

Q. How large was this first room, Miss Pike? A. I do not know exactly how large it was; I should say about probably 30 by 15.

Q. Now, have you told us all about that room? Take the other room, tell us exactly all about that. A. The other room was smaller and only two workers were employed there. There is no arrange-

ment for ventilation at all there, except an elevator hoistway. There are no flues in that room at all.

Q. Nothing at all? A. It was also damp and chilly, and of course, artificial light.

Q. You say there was no means apparent of heating either of these rooms? A. No.

Q. And the girls had their coats on? A. Yes.

Q. What hours did these girls work? A. They worked irregularly, that is to say they worked as long as they have work for them to do. They come to the factory at seven and sometimes they get through earlier than others. The average day is, I think, seven to five-thirty with a half an hour for lunch. At times they come there earlier when there is enough work. It is on the piece work system.

Q. What do they earn? A. They earn seven cents an hour in the candling room, and by piece work in the sausage room. I believe the girls can make in that work as much as a dollar and a half a day in the sausage room.

Q. In the egg candling room they get paid by the hour, so that if they work ten hours a day they could make seventy cents? A. In the candling room they make seven cents. If they are working the full number of hours allowed by law they make seventy cents; they generally make less.

Q. How much would you say the average was, forty or fifty cents a day? A. I do not know; I am unable to form any idea of the average.

Q. If they work as long as the law permits them to, they can only make seventy cents, at the highest? A. Yes.

Q. Now, go on, if you will, Miss Pike, and tell us the rest of your facts. A. I should like to say a word about the room where they make tin cans. Now, in this room only small boys are employed, but there are two or three boys there between the ages of fourteen and sixteen. They work by piece work. Some of them work at punch presses for making the tops of these tin cans. These machines are very dangerous; in that room there are about, I believe, 18 workers, and of those four I counted with hands and fingers bandaged owing to accidents received in the machinery, and two other workers had lost their forefingers.

Q. Did those boys you saw there with their fingers bandaged receive the injury there? A. I don't know.

Q. Did you have any talk with any of them about the danger of the work? A. The man who was taking me through the factory had lost his finger once in the very same machine. He said the trouble with the machine is that they have to work them very fast and it is speeded work; the machines frequently stick in cutting out the tops of the cans, and the worker puts in his hand to remove the top of the can, and the worker is so used to the motion of his foot, it becoming virtually automatic work, with such speed, that he is liable to put his foot down, when he has his hand in the machine. The speed of the work makes it almost impossible in that way to keep from accident, because the work becoming almost automatic, he cannot control his foot from pressing on the lever.

Q. I did not quite catch that. A. I was told of one instance where a man cut the top of his finger off and in trying to explain how it happened, he cut off another finger.

Q. You say he did that in trying to explain? A. In trying to explain, another finger was cut off.

Q. That is due you say to the automatic working of his foot? A. Yes, working at great speed in order to do quickly the work of certain machinery. They have to keep it up all the time. That is the way they get the largest output.

Q. The Commissioner of Health wants to know whether in that egg candling room the air was vitiated or whether it was pure?

A. After you have gone through one of those factories your sensibilities are somewhat dulled, and I do not believe I can say.

Dr. FRONCZAK: What do you say they do with the bad eggs in that room.

The WITNESS: They put them into a box.

Q. Do they sell those eggs to bakeries as they do elsewhere? A. I asked that, but it was not answered.

Q. Not answered? A. No.

Q. What is your idea, as far as you know, that eggs which are rejected for other purposes are very often sold to bakeries, and are used for making pies and cakes and bread?

Dr. FRONCZAK: New York city or Buffalo?

Mr. ELKUS: It has been testified everywhere.

Q. Go right ahead, Miss Pike. A. I think that is all I have to say about that factory, except that the point that most impressed me is the fact that all the women's work was done standing. It is not work that is done walking around, it is done just simply standing, ten hours a day.

Q. In one position? A. In one position.

Q. And for ten hours a day with only half an hour for lunch in the meantime? A. Yes; and there is no arrangement for them to eat their lunch. Some of the women eat their lunch in one of the dressing rooms, but it was extremely small and crowded.

Q. Now, have you finished with the packing factory, or is there anything else that you want to tell us about?

Mr. ELKUS: Now, if the Commissioners want to have this witness questioned about this factory further, I will be very glad, otherwise I will ask the witness to go into some other lines.

Dr. FRONCZAK: Did they tell you, Miss Pike, how many eggs they candled, more or less?

The WITNESS: No.

Dr. FRONCZAK: Did they tell you how they disposed of those eggs?

The WITNESS: No.

Dr. FRONCZAK: Did they tell you how they disposed of the trimmings left on the floor?

The WITNESS: No.

Dr. FRONCZAK: That is all.

By Mr. ELKUS:

Q. Now, Miss Pike, what other establishments or factories did you investigate in the city of Buffalo that you are going to tell us about? A. I inspected quite a number of paper box factories.

Q. Kindly take one which is a fair example of the others and describe its condition, the number of people working there, how they worked, the hours of labor and all the details that you believe we ought to know about. A. I went through the two factories of F. M. Burt Company. These factories are in excellent condition from a sanitary point of view; they are very modern, and very well built and very well ventilated, lighted and heated in every particular. But at one of the factories of this company there are quite a number of machines unguarded; that is to say the corner staying machines. I counted about six little girls with their fingers bandaged, as a result of working at these corner staying machines.

Q. Which were unguarded? A. Some of them guarded and some of them were not. The workers even at the guarded machines were not sufficiently protected, or able to stand far enough back from the guards themselves to avoid accident. The guards themselves caught the fingers of the workers at times. I do not know whether that is a condition which can be remedied or not, but it seems to me young girls working at these machines, they seeming defter and quicker——

Q. How old? A. Between fourteen and sixteen. In one factory where eight hundred were employed, there were at least a hundred young girls between fourteen and sixteen.

Q. That is 100 girls under sixteen and over fourteen working there? A. Yes, sir.

Q. They worked there by permission of the Board of Health? A. Yes, sir.

Q. Is that dangerous work? A. I should say yes, they very often cut their fingers, and smash their fingers. I spoke to one girl about it, and she said she had been very lucky, worked there five years, and had not cut her fingers or smashed them, but she said many of the girls in the shop did cut their fingers and smash them. I said, "It does not hurt very much, it is just a pinch?" She said, "Why, no, sometimes they have to stay home two or three weeks."

Q. What is the condition of the health of these operators? A. They look very well, although, of course, they are all very young. Few of the girls are over sixteen, and I do not think it a fair basis for any expression where the age of the workers is so very young.

Q. Have you anything further to say? A. That is the only thing about the Burt factory, but I visited another factory, Cooper.

Q. Cooper's box factory? Where is that located? A. That is on Sycamore and Mortimer streets. I think they have about two hundred workers there.

Q. What are they, girls or men? A. Nearly all girls.

Q. How old? A. I did not get the figures in detail but about 90 per cent were girls. A number of young girls were employed there. I should say it was the same proportion as the Burt Company employed, girls between fourteen and sixteen, and girls up to twenty. I should hardly think that any of them from their appearance were over twenty.

Q. Now, describe that factory? A. In this factory there is the same trouble. There are ungarded machines. For instance, there are machines for gluing cartons. These cartons are put through two very swift revolving rollers which press them and glue them at the same time. There are four of these machines working mechanically. One of these machines had no guard whatever; the work is so monotonous, and done so swiftly, it is a miracle that more of these workers are not hurt by getting their fingers between these rollers.

One of the other three machines had a guard, simply a sort of bar across the front. That was hardly sufficient. It would prevent a worker's whole arm from being injured, but probably the fingers could get between the rollers, and for that reason the guard is ineffectual.

On the same floor, in one corner, there was a machine where press work was done. The press workers at times had to put their hands inside when any sticking takes place, and there is danger in that regard. The work is very monotonous. As these movements have to be done two in every second it means a hundred and twenty motions of the hands per hour.

Q. Did you find any of these girls had smashed their fingers or their hands? A. Yes, one girl there had her hand bandaged. She injured it quite lately in that shop. That was the shop I was taken around by some man employed by the company, and when I spoke to the girl about it she said it didn't hurt, and it was not anything, but in the other shop where I went around by myself,

the girls told me that it hurt them very much, and it did mean something.

Q. How about the belting in this shop? A. The belting was unguarded all through the shop as it is in most shops. I found only one paper box factory where the belting was excellently guarded. That was in a small shop, not a large shop.

Q. The law requires that belting should be guarded, does it not, Miss Pike? A. I believe so.

Q. Now, are there any other paper box factories you would like to tell us about? What are the hours of work in a paper box factory? A. They worked there from seven to five-thirty, with half an hour for lunch, or from seven-thirty to six, with half an hour for lunch — a full ten-hour day.

Q. That is they are at the place of business ten hours and a half, ten hours of which they work? A. Yes, sir.

Commissioner DREIER: Is that in the paper box factory where they have eight hundred girls under sixteen? A. There are one hundred under sixteen; those girls are eight o'clock girls; they work from eight, come at eight and go at five.

By Mr. ELKUS:

Q. Are there any other paper box factories you would like to say something about, or are the others of the same character? A. I would just like to mention before leaving the paper box factories, that the speed of the work is very great, and it is to that that the amount of accident can be attributed. Accidents are due to that and to the fact that young girls work on unguarded machines at a very high rate of speed; there seems to be no other reason for accident.

Another point I wish to speak of is that in one paper box factory women were working at really pretty heavy work. One woman was putting on the sides of boxes, and worked the machine herself. and in order to operate the machine she had to throw the whole weight of this side on it.

Q. She had to press her weight down? A. The whole weight of one side. This woman put the sides in 1,800 to 2,000 boxes a day. That means two sides to each box, and that means from 3,600 to about 4,000 motions she has to make with the whole weight of the

right side of her body every day that work is done by her. This worker was so very small—she only came about up to my shoulder. She was under-sized and stunted, and had that fagged-out look that some of the workers have after hard years work. She said it tired her after a long time.

Q. And how much wages did she get? A. I do not know. Now, of course, that is hard work for a small worker. These workers are paid one cent a hundred boxes and a very good worker makes five hundred boxes an hour; that is at the rate of five cents an hour, and if they worked eight hours, forty cents a day. That makes \$2.20 a week.

Q. These are piece workers, are they? A. Yes.

Q. And if they work all the hours they are permitted to, and do enough work, they can make \$2.20 a week? A. They were young girls.

Q. How about the elder girls? A. They make more; I believe they can make five or six dollars a week.

Q. If they work ten hours a day and are able to work six days a week? A. Yes.

Q. Now, anything further about the paper box factories? A. No, sir.

Dr. FRONCZAK: Did you see any anemic girls?

The WITNESS: Yes, quite a number, I should think, might be anemic.

Dr. FRONCZAK: Did they look tubercular, any of them?

The WITNESS: I do not know, I could not say.

Dr. FRONCZAK: Did you see any physically undeveloped girls, stunted?

The WITNESS: Yes.

Dr. FRONCZAK: Puny?

The WITNESS: Yes, this worker which I mentioned was one, I should say, who was stunted.

Dr. FRONCZAK: Was she over fourteen?

The WITNESS: Yes, I should judge she was about thirty.

Dr. FRONCZAK: In that place of Dold's, did you hear any complaint of rheumatism?

The WITNESS: I could not speak to the workers; there were two reasons, one was the language.

Dr. FRONCZAK: What nationality were they, mostly?

The WITNESS: Mostly Polish, and a few Germans.

Dr. FRONCZAK: Was it so in the paper box factory?

The WITNESS: No, in the paper box factories there were a great many more Americans and German girls, and the Polish girls nearly all spoke English.

Dr. FRONCZAK: In Dold's did you see any girls that looked tubercular?

The WITNESS: I could not say; I am not a physician and would not be able to tell.

Dr. FRONCZAK: But they looked anemic, some of them?

The WITNESS: Most of them, I should say, looked fairly healthy.

By Mr. ELKUS:

Q. The girls had just been there for a short time? A. Yes.

Q. Now, what other factories did you inspect besides paper box factories, that you want to tell us about? A. The only other factories that are worth mentioning are some candy factories.

Q. Tell us about those. A. I visited about five candy factories. These too I found excellent. There are other small shops employing a very small number of workers.

Q. These two you were in? A. Yes.

Q. I would like the names of them. A. One of them is Loft's chocolate, and the other is the Candy Kitchen.

Q. Now, tell us the others you investigated and what you found. A. One of the factories I investigated was the National Candy Company. They employed about 160 workers, about 100 women and girls. The building was fairly modern, but the conditions for ventilation were extremely bad. They had no ventilating system. The windows in a candy factory cannot be opened in cold weather at all, because of draughts on the candy. They spoil it.

On the top floor there were about eight copper cooking kettles without any hoods at all. The room was full of steam and humidity, and the odor coming from them was sickening. The same condition prevailed on the second floor, too. Two of the kettles there were connected with hoods, and one of them was not. The employer there, told me it was going to be very shortly. Three other kettles had no hoods, and they were throwing off steam, and the odor was awful. Of course, the rooms are all hot and unventilated and it is a very close and humid atmosphere. Otherwise the places were filthy, right through from top to bottom.

Q. Filthy, what do you mean by that? Stuff thrown on the floor? A. Actually the stuff was thick on the floor—the floors were sticky so as to hold to your foot. Your foot would stick to the floor as you walked. Actually caked with candy.

Q. How about the toilets in those places? A. The toilet there, had light and air except on the fifth floor. Also in a filthy condition. The stuff in the shop was dropped into the toilets. Dirty, ill-kept and untidy.

Q. Now, that is the National Candy Company? A. Yes.

Q. Now, tell us about some of the others, if you have finished that; if not, go ahead. A. The conditions in the other shops were practically the same.

Q. In the other candy factories was there dust in the atmosphere? A. Not that I noticed.

Mr. ELKUS: Any questions by the Commission?

Commissioner DREIER: I wanted to ask the nationality in the meat packing industry.

The WITNESS: Chiefly Polish.

Commissioner DREIER: Men and women both?

The WITNESS: Yes, Polish and German.

Commissioner DREIER: And in this sausage factory, where they worked, was that machine put down by one foot all the time or could they alternate their feet?

The WITNESS: No, only one foot.

Commissioner DREIER: Any lunch rooms for the girls to get their lunch?

The WITNESS: In Burt's there were lunch rooms.

Commissioner DREIER: In the sausage factory were there any dressing rooms?

The WITNESS: Yes, but they are not very adequate.

CHARLES H. STEVENS, called as a witness, and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. What is your address, where do you reside? A. 1357 Jefferson street.

Q. In the city of Buffalo? A. Yes, sir.

Q. What is your business occupation? A. Cigarmaker.

Q. How long have you been a cigarmaker? A. Thirty-seven years.

Q. And what official position have you in connection with the Cigarmakers' Union? A. I am representative of the Cigarmakers Union of Buffalo.

Q. How long have you been such? A. Five years last July.

Q. How many members is your union composed of? A. Somewhere in the neighborhood of 500.

Q. About how many cigar factories are there in the city of Buffalo? A. Somewhere in the neighborhood of a hundred.

Q. Now, Mr. Stevens, you have volunteered to come before the Commission and tell us some of the conditions surrounding the manufacturing of cigars in Buffalo. Will you tell us what factories you are yourself familiar with, and what conditions you find there? A. Well, all the factories under the control of the Cigarmakers' Union of Buffalo are in good sanitary condition. We have always requested and insisted that our manufacturers keep their factories in good condition. If they want to keep the cigarmakers' label, they have to do that. The policy of the Cigarmakers' Union for years has been to fight for good sanitary conditions for the employees. We are not bothered with many non-union factories in Buffalo, but other large cities have them. The non-union shop is where all the trouble exists, because the individual worker has to fight his own battle and you know that where a man goes and complains about the conditions under which he is employed, he is very liable to be discharged.

Q. Does your union employ inspectors to examine union factories? A. That is part of my duty.

Q. Now, Mr. Stevens, will you tell us some of your own inspections of factories where you discovered conditions that you want to call the attention of the Commission to? A. I have discovered factories and taken the label away from them until they placed their factories in a sanitary condition.

Now, the native born or the person who has lived in this country for a great many years, we do not have much trouble with, but it is the foreigner who comes over to this country and accumulates a little money and starts in business.

One instance in particular was a man who started a factory, and who was a member of our organization. He had his factory in his kitchen, dirty dishes all over the tables, and a bed room right off from the kitchen, with the door open; the bed was in bad condition. I notified him that the label would be taken away from him until such time as he would place his factory in a

building that was proper for a cigar factory. Those are conditions that we have got to face ourselves.

Q. Who strips the tobacco in those factories, women, girls, or men? A. Often girls.

Q. How old are they, Mr. Stevens? A. Well, they are supposed to be 16, 17, or 18, according to law.

Q. How about ventilation in these places? A. Well, fairly good.

Q. Only fairly good? A. Well, the majority are all right, especially the larger factories.

Q. Now, have you any other conditions that you want to describe? A. Well, there is a condition that prevails in the stogie industry in Buffalo. That is something we have never been able to control.

Dr. FRONCZAK: Who?

The WITNESS: The Cigarmakers' Union. Now, I have called it to the attention of the inspector several times, but no good has been accomplished.

By Mr. ELKUS:

Q. That is the stogie industry? A. Yes, sir.

Q. What is the condition you found, that you wish to call attention to? A. I would like to have the Commission go down to around Dante place and Seneca street to see for themselves.

Q. Just you describe it to us. A. Now, some of them, the little children play, the family play around in the factory. The factory is in bad sanitary condition, and dirty.

The stogie maker sits at a table. He has a board or a zinc on top of the table and he has got a little basin there about that big around (indicating) filled with flour paste. He grabs his hand into the flour paste, he smears it over this board, and he takes a piece of tobacco and pastes it down on that paste and then he trims the top off and then the bottom. With his dirty hands he takes the tobacco pieces and puts them in his hand until he gets a sufficient amount, and then he starts rolling up the stogie, and his hands are still in the same condition. He grabs in his

hands and smears the paste on top, and in some instances when his hand gets dry he expectorates on his hands.

Q. You say the general conditions of these factories are filthy and very bad? A. Yes, sir, very bad.

Q. Children play there right along? A. Around in the factory.

Q. They don't eat their meals there? A. No, not that bad.

Dr. FRONCZAK: Did you notify the factory inspector of this? A. Yes, I did, several different times.

There is one thing I want to complain of. I did it before the Committee that was here, the Board of Business Agents' Meeting.

The law pertaining to factory inspectors does not go far enough. Now, you take one man working alone. If he is running a cigar factory he has a lot of people working right in the same room, with a bed and everything right there and old black mattress, dirty and filthy.

Q. Alive? A. I didn't get close enough to it. When I went into the room the stench almost knocked me down. I found out the factory inspector and I notified him.

Q. What was his name? A. Johnson. He said, "All right, I will go down and examine it." He went down, and wrote me a letter. He said that the conditions I described to him were true, and he enclosed in the letter one of the books with the Factory Law. That law specified that where a man was running a factory and employing labor it was under their jurisdiction — they had such a law. But where a man was working alone under those conditions, the State law did not have anything to do with him. Now, that man you cannot get control of. I have seen some people and I would not have smoked one of their cigars after seeing the conditions under which they were made for any amount of money.

Q. Did you ask him to submit that question of law to the Legal Department of the Labor Bureau? A. No, I was so disgusted after I read the letter and after I was informed of this law, that I did not feel like going any further.

Q. Now, is there anything further, Mr. Stevens, that you would like to state to the Commission? A. I want to state this, that if you remember along about 1883 or 1884

the Cigarmakers' Union had a law passed prohibiting the manufacture of cigars in tenement houses. There was a large concern in the city of New York where they employed as high as five or six hundred families, and Roosevelt, ex-president of the United States, at the time that this law was before the Legislature, was Police Commissioner of the city of New York. He made the statement that if the Legislature could see the conditions under which these cigars were made, or the citizens, we would not need legislative action to stop that evil, meaning that the people would refuse to smoke the goods.

That law was declared unconstitutional. They used to have typhoid, diphtheria and all other kinds of contagious diseases. I have no fault to find with the Supreme Court of New York.

Q. The Supreme Court of the United States? A. The Supreme Court of the State of New York set that law aside. It was the Baker law.

Q. The Court of Appeals? A. Possibly at that time the constitution was in such shape that they could not do otherwise, but it was an awful decision. That is, from the standpoint of the health and protection of the worker.

I want to say that I have been in the union inspection business for over thirty years, and all these things that have come to light now, will help the worker in life and limb and sanitary condition, and I am awfully glad that the Legislature is interesting itself in it.

Commissioner DREIER: I wanted to know where, in the stogie factory that you speak of, the children were. Were they in the tenements?

The WITNESS: They belonged to the family.

Commissioner DREIER: Are the factories themselves in the home?

The WITNESS: Yes, the factory is in the front and the home in the back.

Commissioner DREIER: And do they employ other people besides themselves?

The WITNESS: Yes, five or six; not every day, just small Italians, generally.

Commissioner DREIER: Can you give us any idea how many of these small factories there are?

The WITNESS: Four or five that I know of.

Mr. ELKUS: Thank you very much, Mr. Stevens.

JOHN HEINTZ, called as a witness, and duly sworn, testified as follows:

By Mr. ELKUS:

Q. Mr. Heintz, where do you reside? A. 343 Morsell street.

Q. What is your business? A. Baker.

Q. How long have you been a baker? A. Forty years.

Q. Are you connected with the Bakers' Union? A. Yes, sir.

Q. In what capacity? A. Business agent.

Q. How long have you been connected with the union? A. Since 1885.

Q. How large is the union, how many members has it in Buffalo? A. 206 to 210.

Q. How many bakeries are there in the city of Buffalo? A. About 140.

Q. Now, Mr. Heintz, you have made inspections and investigations of bakeries in this city, and you have volunteered to come before the Commission and discuss those conditions which are bad. Will you be kind enough to tell us what you have done? Also I am informed that you have made certain complaints which have been disregarded? A. I will say this much—that the city of Buffalo has got the most sanitary bakeshops of any large city in the United States. The reason is this; our local board here, the Board of Health always assists us in every way, shape or manner.

Q. We would be very glad to hear about this. A. We make complaints to the Board of Health and they assist us, but I have

been in other large cities, for instance, in the city of Albany, and I find the worst conditions that could be found. I have been there three times during the time I have been an organizer and I found very bad conditions.

Q. Now, have you any bakeries in cellars here in Buffalo? A. Not any more.

Q. Not allowed? A. No, sir, that was all done away with by the Board of Health of the city of Buffalo.

Q. You abolished cellar bakeries? A. Yes, sir.

Q. Now, tell us some of the conditions you wanted to let us know about in bakeries here? A. There are some of the smaller shops which do not belong to the organization, and we have no control over.

Q. Tell us in what respect? A. In the line of sanitation and being clean, you know. In one of those, the men worked too long hours.

Q. How long do you work? A. Our hours are nine hours at night, and ten hours during the day. That is, a union concern.

Q. What are their hours? A. But since the ten-hour law has been declared unconstitutional, in some of the shops they work the same as they used to do. That law was passed back in 1896. They work since then from ten to eighteen and up to twenty hours.

Q. Now, tell me a little more in detail about the conditions in some of these non-union shops. You say they are not sanitary. You mean they are dirty? A. We can only say what we hear, because we have no access to the shops; we cannot go into them, so I cannot give you any very close details about the matter. The only way we have is what we hear; I am not allowed to go in the shop, but in all union shops I am allowed to go in. It is specified in our contract for me to visit the shops throughout the State during all working hours.

Q. Now you said something about making complaints and not getting any satisfaction from the Labor Department. Tell us about that. A. Well, I did in Albany, yes, sir.

Q. Tell me about it now. A. I went to see Mr. Williams when I was in Albany about a complaint.

Q. That is the Commissioner of Labor himself? A. Yes.

Q. What did you say to him? A. I told him the condition of some shops in Albany.

Q. Did you give him the numbers and addresses? A. Yes, sir.

Q. Can you tell me those now? A. I go there later on, about three months, and it was not attended to then.

Q. Can you tell me the numbers of those shops and their addresses? A. Well, there is one shop on Broadway, right near the Viaduct there, where there is a cigar factory right the other side.

Q. What did you find in that shop? A. The ventilation is very, very poor. You can hardly get around the shop, to get in the bakeshop. There are all kinds of tools and you cannot move around there, and no ventilation hardly whatever.

Q. Dirty? A. Dirty besides, yes, sir.

Q. Not kept clean? A. Well, I should say that it was not kept clean.

Q. You said you made a complaint about three or four of those in Albany? A. Yes, sir.

Q. You went to the Commissioner and gave him the facts and you went back three or four months later? A. Yes, sir.

Q. What did you find? A. The shop on Broadway was in the same condition, had not been touched.

Q. Had not been ventilated? A. Had not been ventilated.

Q. Did you go to the Commissioner again? A. No, sir.

Q. Now is there anything further you would like to say to this Commission, Mr. Heintz? A. No.

Q. In the city of Buffalo, do the bakers wear their street clothes in the shops or do they wear special clothing? A. No, we would not allow it; we would not allow them in; they have got special clothing.

Q. That they put on when they come in the shop? A. Yes, sir.

Q. How often do they change them? A. Change them twice a week.

Q. Who furnishes them, the employer or do they do it themselves? A. Furnish themselves.

Q. Do they have toilets and places to wash? A. Yes, sir.

Q. How are the toilets? A. In pretty fair condition all around.

Q. What do you mean by pretty fair condition, they could be better? A. There are some could be better, some in the smaller shops.

Q. Are the toilets right in the bakeries? A. No, sir.

Q. In separate rooms? A. Separate rooms.

Mr. ELKUS: Any questions?

Commissioner DREIER: Are there dressing rooms to change the clothes, or do they change them in the shops?

The WITNESS: They have got dressing rooms, yes.

JOHN COLEMAN, called as a witness, being duly sworn, testified as follows:

By Mr. ELKUS:

Q. Mr. Coleman, what is your business? A. I represent the Central body of the city of Buffalo.

Q. Tell us a little more what that means? A. Well, that is a consolidation of the labor forces or the representatives of the different organizations.

Q. How long have you been a representative of that body? A. Thirteen years.

Q. And how many working men are there in those bodies you represent? A. About forty thousand.

Q. Now, what is your business particularly? A. To endeavor to take care of disagreements and other matters that come up at various times between the employers and the employees.

Q. Now, you have been kind enough to volunteer to come before the Commission. I understand you would like to tell us something about the proper supervision of factories by the Labor Department. Am I right about that? A. Yes, sir; somewhat.

Q. Will you be kind enough to tell the Commission all the facts you have in mind with reference to that, with such suggestions as you desire to make? A. Well, I want to say that for a number of years complaints have come to the office from employees concerning different factories in this city of violations of the Labor Law.

I have no way very often of investigating those things for myself, any more than what I can see openly. I can see violations to-day, and any other man that walks through the city of Buffalo can see violations of the Labor Law.

Q. That is if you keep your eyes open, anybody can see them?

A. Certainly. You can go to-day where they are putting up those iron structures here in the city of Buffalo, one on Main street and one on Huron and Genessee, and find some of them up seven or eight stories, and none of the floors covered over. Now, there are a lot of laws that we spend thousands of dollars to put on the statute books of the State but they do not seem to be enforced.

We have taken the matter up with the Labor Bureau in Albany and their excuse to us is that they have not got help enough to investigate all those violations that are brought to their notice. That is the main ground of the difficulty. Now, there is one way, in the minds of the labor people of the city of Buffalo, to eliminate the violation of the labor laws in this locality, and that is to establish an office to which I myself or some other representative, when a violation comes to his notice, can go and have it investigated and remedied. We have an instance here of that. That is the examining of engineers; that is the Engineers' Examining Law. If there is any violation, and we find an engineer running without a license in a building or in a plant, all we have to do is to go there and lay our complaint with the examiner of the engineers, and he sees immediately that it is stopped. We had a bill on this in the Legislature for the last few years asking for an assistant district attorney in this locality, but unfortunately the bill was defeated. These people see that that seems to be the only possibility whereby under the present circumstances, the workers can get relief here in this city.

We know there are violations of the labor laws, we know that they are continually going on, but we write to Albany and they communicate with the factory from Albany that a certain inspector will call on them on a certain day of a certain week at a certain hour. Well, you know the result of that.

Q. We do not know, but we can imagine. Mr. Coleman, is it your idea that there ought to be in the city of Buffalo some office of the Labor Department to take immediate action upon

complaints made to it and which should have supervision of all inspections in this city? A. Yes, sir.

Q. There is such an office in New York city, you know. A. Yes, sir.

Q. And your idea is that if there was a similar one here, complaints could be attended to much more promptly and much more efficiently? A. We could get results.

Commissioner SMITH: There was a law passed last winter providing for that, and I presume there will be an office here and a supervisor or an inspector to take care of this district. A. I think that that should be here, so that those things can be eliminated.

By Mr. ELKUS:

Q. Now is there anything further, Mr. Coleman, you would like to lay before the Commission? A. No, sir, that is the only suggestion. This is a matter I gave a great deal of study to.

Q. I can see that. A. I gave it a great deal of study and I want to say that the labor laws we have got spread upon the statute books of this State are equal to any laws in this country, or in this world, but there seems to be no system of enforcing them.

Q. Mr. Coleman, do you believe it is necessary from your knowledge that there should be a more thorough, general investigation of establishments in the city of Buffalo than has been made? A. I do not see the good that it could do.

Q. You think that if there was established here a branch office of the Labor Department, that complaints would come to it? A. Yes, sir.

Q. But don't you find that many people do not complain about the evils in factories because they get used to them? A. They don't complain now so much, owing to the fact that there is never anything done on the complaint.

Q. You think if notice was taken that complaints would come in? A. Yes.

Q. Do you believe it advisable for the Legislature to pass a law compelling every manufacturer to register with the Labor Department, giving the name of the employer and his place of business

so that the Labor Department will know where a factory is located? A. Yes, sir.

Q. Do you believe every factory, before it starts in business, should be licensed by some department, either of the State or city, that license only to be obtained after an inspection by some authority to see that they have a proper working place, that there is plenty of light, plenty of air, and things of that kind?

A. Yes, sir. I believe they should be licensed to comply with the law.

Mr. ELKUS: Any further questions?

Commissioner SMITH: I want to ask Mr. Coleman something with regard to building construction. Have complaints been made to the department for any violation of the Building Code?

The WITNESS: Yes, sir.

Commissioner SMITH: And what have they done with regard to it?

The WITNESS: I do not know what they have done, but the building is still in the same way as it was.

Commissioner SMITH: The building violations by contractors are quite general throughout the city?

The WITNESS: Yes, sir.

Commissioner SMITH: The contractors violate that provision of law?

The WITNESS: Continually.

Commissioner SMITH: I was wondering to what extent we could get authority to compel them to comply with the law.

The WITNESS: The only way I see would be that when we have flagrant violations of the law, we have to go down in our

own treasury to prosecute them. We have got to engage an attorney and furnish the evidence and everything else, and then, in ninety-nine cases out of a hundred, the man that we are forced to put on the stand to get the evidence is discharged from his employment.

Mr. ELKUS: We are very much obliged to you, Mr. Coleman.

JOSEPH BALL, called as a witness, and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. What is your name? A. Joseph Ball.

Q. Where do you reside? A. 364 Front avenue.

Q. What city? A. Buffalo.

Q. How long have you lived in Buffalo? A. All my life.

Q. Mr. Ball, have you been employed by this Commission to make investigations of manufacturing establishments in Buffalo?

A. I have.

Q. How long have you been engaged in making those investigations? A. One week.

Q. What is your business outside of that? A. Machinist.

Q. What kind of a machinist? A. General all around machinist.

Q. How long have you been working at that trade? A. For the last fifteen years.

Q. What factories did you investigate or inspect in the city of Buffalo in the last week for this Commission? You may refer to your notes, if you want.

Commissioner SMITH: I was going to suggest that the names be not made public, but simply be given to the Commission.

Mr. ELKUS: He may give the initials.

The WITNESS: I covered in all about forty factories, the principal metal industries here; I have a report on a few of the principal ones, if you care to hear them.

Q. Yes, we want a report on a few of the principal ones; give the initials of the concern, and just the street on which they are located, without giving the name or designation. A. The first one is B. & F. Company, 490 Broadway, Buffalo, New York. New factory; there are four buildings in all. Factory B, six story building, no fire-escape on the entire building.

Q. How many men are employed there? A. About 150 in that building.

Q. No fire-escape at all? A. No, as far as I can see.

Q. No fire-escapes; what kind of staircases? A. One wooden staircase about three and a half feet wide.

Q. What is the building, brick? A. It is brick construction, wood floors and wood partitions.

Q. So that, in case of fire, the only way a man can get out is down those wooden staircases? A. Yes. The only exits are three bridges leading to another building—the pattern shop in another building.

Q. Say that over again. A. Are three wooden bridges connecting with another factory.

Commissioner DREIER: On alternating floors?

The WITNESS: Only on three floors, and they would have to go down from the fifth and sixth floors.

By Mr. ELKUS:

Q. You say there are six stories, and on three of the floors there are wooden bridges leading to the pattern shop in another factory? A. Yes.

Q. And the people on the upper three floors, that is, from the fourth, fifth and sixth floors, would have to go down to one of these other floors and go across one of these wooden bridges? A. They would, yes, sir.

Q. And then there is a staircase, a wooden staircase, where these men would have to come down to get to the third floor? A. Yes, sir.

Q. And those staircases go down to the street? A. No, this staircase comes down to the first floor of the factory.

Q. Don't you go out on the street at all? A. No, you come down from there and you go into this wooden pattern shop.

Q. Is there no way of getting out of this building at all except going across these wooden bridges? A. That is the only way.

Q. No fire-escape? A. No fire-escape.

Q. You mean to tell me that you could not get out of the building except in that way? A. That is the only way.

Q. Give me the full name of that place. A. The Buffalo Forge Company.

Commissioner DREIER: Is it a rear building?

The WITNESS: No, it is a front building; it faces on Broadway.

By Mr. ELKUS:

Q. Why don't they have an entrance to the street? A. Why, I do not know; I did not ask them that. I suppose they wanted their employees to go through only one entrance.

Q. Through the pattern shop? A. Yes, sir.

Q. How about the sanitary condition of the place? A. The machine shop was in a filthy condition.

Q. How many people worked in that six-story building? A. I should say about 100 or 150.

Q. No more than that? A. More than that, if the place was busy. They are not very busy just now.

Q. How many more are there usually when they are busy? A. Oh, there are probably a hundred more.

Q. That is 250 people working if they are busy? A. Yes. The machine shop is in a filthy condition. Artificial light is used most of the time.

Q. What do you mean by being in a filthy condition? A. The floors are very dirty, the walls dirty, the windows unwashed. It is absolutely unsanitary and absolutely necessary to have artificial light practically the entire day.

Q. Why? A. Why, it is so dark in there, the men have to have light to see to work.

Q. There are also four emery wheels unguarded in these factories. The diameter of these wheels is about 12 by 14 inches. There are three polishing wheels with no exhaust system; about three to four inches of dust around these wheels. There is no ventilation system of any kind in this factory, only windows. The toilets are unsanitary.

Dr. FRONCZAK: You say there was no ventilation except windows? A. Yes.

Dr. FRONCZAK: Will you say whether or not the windows were opened or closed? A. Well, they were opened or closed, according to the weather conditions outside.

By Mr. ELKUS:

Q. How did you find the atmosphere in there? A. Why, I found it very close and was not able to breathe, in fact.

Dr. FRONCZAK: Does the Buffalo Forge Company, among its products, manufacture ventilating systems of all kinds?

The WITNESS: I understand they do.

Dr. FRONCZAK: Have they installed any in their own place?

The WITNESS: They had in the office.

By Mr. ELKUS:

Q. In the office where the employers are? A. Yes, sir.

Q. Now, go on — you started to tell us about the toilets being unsanitary? A. They were unsanitary.

Q. What do you mean by that? A. Why, they are filthy; they are in a dirty condition; the floors are unclean, and they are not flushed, and they are not kept as they should be.

Q. Smelly? A. Very.

Q. You have described this six-story building? A. Yes.

Q. Now, take the next building. Do they make lead hammers in that building? A. Yes. And in one corner of the

machine shop there is a lead-heating apparatus, where they heat the lead. That is very unhealthy, and there is no ventilation there. A man was working at this two years, and he handled this lead, putting it back and forth, and I understand he does not wash his hands for meals; I understand that he would not have time.

Q. Why didn't he have time? A. They only have half an hour for dinner, and I guess it takes about five or ten minutes to get this lead dust off from his hands.

Q. That is where they get the lead poisoning? A. That is where they get the lead poisoning, yes.

By Commissioner DREIER:

Q. They eat their lunch in the room? A. Some do eat their lunch in the room, and some go outside the place.

By Mr. ELKUS:

Q. What hours do they have in this building? A. Ten hours.

Q. You mean ten hours outside of half an hour for lunch? A. Yes.

Q. That is, they are in the place ten and a half hours a day? A. Yes.

Q. Did this man have lead poisoning who was working there in the lead place? A. I can't say whether he had poisoning, but he looked very unhealthy, and he did not seem to me as though he ever washed his hands very much and all that kind of thing. He had been working at this for two years. The fumes of this lead simply permeated the factory. The foundry has no ventilation only windows.

Q. The foundry is a separate building? A. The foundry is a separate building.

Q. How many stories are there? A. Just one story.

Q. And there is no ventilation except windows? A. There is no ventilation except windows and the toilets are in an unsanitary condition.

Q. Now, just what do you mean by that? A. Well, they are filthy; some of the seats are broken, and generally dirty, and

the sinks are out of order in that toilet, too, and in one toilet there was no light. That is about all in that foundry.

Q. Now, in both of these buildings you have described was the belting unguarded? A. Yes, the belting was unguarded. I would not say all the belting altogether; not all of it. I will come to that in a minute. I have got that in a separate report.

Q. Go ahead, Mr. Ball. A. The pattern shop is a two-story wooden building, wooden, about forty years old. That is where they started their plant, in the pattern shop on the second floor. There is no ventilation and the room was thick with wood dust. The machinery was unguarded, particularly one machine, a blocking machine, I think. That was right in the passage way where the men pass back and forth right here; that revolves at a high rate of speed, and was dangerous and any man could get caught or something of that sort.

Q. Do you know any instance where that happened? A. I did not ask them.

Q. How many men worked in this pattern shop? A. There are probably twenty-five men.

Q. Any girls? A. No girls, not in the pattern shop. That will be all for the Buffalo Forge Company.

Q. Now, give us one or two more. A. Shall I give you the initials of this other firm.

Q. Yes, give us the initials, please. A. This is the R. M. Company.

Q. Just give us the street, please, that it is on. Do not give us the number. A. Republic street.

Q. What kind of a business is it? A. The business here is simply metal stamping. They have about four hundred—

Q. How many buildings are there? One or two? A. Two buildings.

Q. How many people are there in the whole factory? A. About four hundred.

Q. Men, women and children? A. Four hundred men and boys, and about eighty girls.

Q. How old are the girls. A. They range from say fourteen to twenty. Now, the industry is metal ware; the bulk of the workers operate punch presses; mostly all piece work, this no doubt

the reason for the number of accidents. A number of workers had fingers missing, and some had bandages on their hands.

Q. Do not go so fast. How many have fingers missing? A. I noticed probably four or five.

Q. How many had bandages when you were there? A. Two or three. I was directed to the factory by a boy eighteen years old. I happened to notice two of his fingers were bandaged, and he informed me that he had lost the two fingers at the Republic Metal Company. He said the accident was caused by the press sticking.

Q. Do you know whether or not there are accidents there every day? A. I won't say as to that. I tried to find out at the time from the boy; he said some days they didn't have any, and some days they have one or two. Then, he says, it runs along for a week or more, but he says there were accidents on the average about every other day. This accident he says was caused by the press sticking. He said this happened quite frequently. He was working piece work.

Mr. ELKUS: Is Mr. Johnson in the room? Mr. Johnson or anyone representing the State Labor Department?

(A gentleman stands up in the audience.)

Mr. ELKUS: What is your name?

(The gentleman states his name is Marcus.)

Mr. ELKUS: Are you located here in the city of Buffalo?

Mr. MARCUS: Yes, sir.

Mr. ELKUS: As an inspector or in what capacity?

Mr. MARCUS: Bureau of Industrial Examination.

Mr. ELKUS: You have nothing to do with inspecting factories?

Mr. MARCUS: No.

Mr. ELKUS: Where is Mr. Johnson, can you tell us?

Mr. MARCUS: I don't know.

Mr. ELKUS: What is the name of the inspector located in Buffalo?

Mr. MARCUS: I could not tell.

The WITNESS (Ball): He also stated he is receiving no pay while his fingers are being healed, but he thinks the doctor's bill will be paid by the company.

On the fifth floor there are 15 girls at work; they solder tinware; they look very unhealthy and half of them wear glasses.

Q. How old are these girls? A. I questioned one of them, and she said she was under sixteen, but she had her papers. They are from sixteen to eighteen, no more. There is no ventilation for the fumes of the acid ore from the gas furnace, except by windows.

Q. Are the fumes in that room? A. Yes, sir.

Q. They are not carried off at all? A. No, there is no ventilation at all any more, only windows, and in the winter, of course, they are closed. A few boys under age are operating punch presses. Toilets on the first floor in very poor condition.

Q. Wait a minute; not so fast. What do you mean by that? A. Well, they are dirty, not kept clean, and a few are out of order. They are drop closets, and they are not working right. The rest of the toilets in the building are in fairly good shape.

Q. How about means of exit in case of fire? A. They are pretty well taken care of. There were two fire-escapes on one side and three on the other, and a number of stairways. That is all about the Republic Metal Company.

Q. Now, what other factories did you examine that you want to tell us about? A. I have another one.

Q. Don't give the name? A. The P. L. Company.

Q. What kind of a business is that? A. That is principally moulding. There are a number of workers in that industry — nine hundred. The building is forty years old. There are three buildings there, about forty years old, no ventilation. The toilet is in the center of this factory.

The VICE-CHAIRMAN: That is a foundry? A. Yes. The toilet is located in the center, and I was informed by the superintendent that that was flushed once a day.

By Mr. ELKUS:

Q. In the center? A. Yes.

Q. What do you mean by that? A. Well, this was in the big foundry, right in the center of the factory. There is a place partitioned off by a fence, and in the center is a toilet room.

Q. No ventilation except to the main room? A. That is all. They are only flushed out once a day.

By Commissioner SMITH:

Q. Why are they not flushed more than once? Is there any tank? A. No, there is no tank. I think there is some sort of a connection with the city water; I did not ask.

Commissioner SMITH: That is, the employees were not willing to tell you much about it? A. No, the superintendent told me himself they are flushed once a day.

By Mr. ELKUS:

Q. You mean it cannot be done except by some outside method? A. Somebody comes in the evening, and probably turns on the valve, and allows the toilet to flush.

Q. Was that toilet clean or dirty? A. It was dirty, filthy.

Q. How about the odors from it? A. The odors were not very nice. They have an exhaust fan system out of order. They were all out of order, stopped up with dirt. No exhaust system for emery wheels.

By Commissioner PHILLIPS:

Q. Were they in operation at all? A. No, they were stopped; I was informed by the manager of that factory, when I went through there, that they were out of order, but they were going to be fixed.

By Mr. ELKUS:

Q. Mr. Ball, how many men worked in this room where the toilet was in the middle of the room? A. Well, there were probably three or four toilets about the same construction, but there are about three or four toilets scattered throughout this same premises. It is quite a large factory.

By the VICE-CHAIRMAN:

Q. Is it on the ground floor? A. It is on the ground floor, yes.

By Commissioner PHILLIPS:

Q. Is there more than one story to the building? A. Only in one building, that is the pattern department.

Q. The foundry is only one story high? A. The foundry is only one story high.

Q. Any windows in the ceiling, any cupolas? A. They have some windows up there, I did not notice whether they were open or not. I got in there just at the time when they were pouring the metal and I could hardly stand it.

By Mr. ELKUS:

Q. Why was that? A. The fumes of the gas were so thick we had to leave that factory for a while and come back afterwards when it quieted down.

Q. In what room were the women employed? A. About forty women at work in the core room.

Q. I suppose it was 50 feet by 25, by 22 feet high? A. Fifty feet long, 25 feet wide. These women, I should judge, were about 16 years to 37. They worked ten hours a day, standing, making cores on the piece-work system.

On one side of the building there are no windows. There is a skylight in the center of the room.

In the center of this room there is a large core oven, about twelve feet high by six feet by twenty-two feet long. This is used for baking cores; that is kept very hot all the time. The only ventilation is the windows and the small skylights in the center. There are two toilets for these forty women — one of them out

of order. There was no light in either one They were in filthy condition. The women here are all Polish women.

By Commissioner PHILLIPS:

Q. What do they make at piece-work there? A. I have no idea; they probably make six, seven, eight or nine dollars a week.

By Mr. ELKUS:

Q. Working ten hours a day? A. Working ten hours a day and standing all day.

By Commissioner PHILLIPS:

Q. I suppose that is liable to cause them to develop wrong? A. It may do that, and probably causes other things.

Q. Was the ventilation any better there than in the part where the men were, except that the work is different? A. The nature of the work is different, and there is not so much smoke, because the fumes of those cores pass all about and make the atmosphere smoky. It was quite dark in there.

By Commissioner PHILLIPS:

Q. Do you know whether any of the women were married? A. I did not ask them if they were married or not, but very many of the ladies there had gray hair; whether they were married or not, I do not know.

By the VICE-CHAIRMAN:

Q. What kind of coal did they burn?

The WITNESS: I think they burned coke in these ovens. I would not say for sure.

Q. Soft coal? A. No, I believe it is coke they burn in these ovens. That is what they burned in the factories here. I would not say positively whether it is coke or not, but in my own foundry they burn coke.

By Mr. ELKUS:

Q. Have you finished with this building? A. Yes, that is about all there is for this company. Would you like to hear about any more?

Q. Yes, go right ahead. A. There is another one, the R. Manufacturing Company, — industry, metal, copper and brass. One hundred and seventy-five men and forty women.

Q. How large a building? A. This building probably is 150 feet wide and 300 feet long; about three stories.

Q. How about fire-escapes? A. Yes, there are fire-escapes on each side.

Q. Wooden floors? A. Wooden floors, yes.

Q. Wooden staircase? A. Wooden staircases. The floors, ceilings and walls in a filthy condition. Buffing and polishing rooms one of the worst in the city. No exhaust system for the buffing wheels. The buffing room has no ventilation, only windows.

Q. Were they closed or open? A. They were closed.

Q. Go ahead. A. It was stated by the management that a new system for buffing room was to be installed.

Q. Did he say when? A. He did not say. The only evidence seems to be two fans and some piping in the corner. No work was being done at present. There was no buffing system at present. This buffing room, in my opinion, is a disease-breeding spot.

Q. Why? A. The men looked unhealthy and they inhaled the dust.

Q. You mean the dust arising from the wheels blows over the rooms and the men inhale it all day long? A. They do.

Q. There is no way of carrying it off? A. There is no way of carrying it off. In my opinion no work should be allowed in this factory until a fan system is installed. In fact, I may remind the Commission here that I was in the buffing factory and that I was almost unable to breathe. I would suggest that the Factory Inspector should not allow them to run that buffing room until there was an exhaust system installed. Now, they are running that buffing room, and in my opinion that buffing room is in the worst condition I ever saw.

Q. What is the name of the concern? A. The Ray Manufacturing Company, 1489 Niagara street.

By Commissioner PHILLIPS:

Q. There has been a great deal of litigation with that company under the law and we have got to assume that they are going to do something or they will have to.

By Mr. ELKUS:

Q. Anything else about this particular business? A. Yes. There were five girls operating punch presses in that factory; it has no ventilation, only windows. The toilets are in a filthy condition. There are a number of machines unguarded, and artificial light is used practically the entire day in the center of the factory. That is all for the Ray Manufacturing Company.

The next concern is the C. Company. Industry, also sheet metal stamping. Five hundred men employed there. Four-story building. On the first floor, machinery. The machinery in this department is mostly unguarded; it is too crowded for safety. No ventilation. Emery wheels, 22 inches in diameter, and not protected. About twenty boys are employed in this room, sixteen to eighteen years old, helping on punch presses. This is a very dangerous occupation for a boy, as he is generally seated right near one of the large gear wheels. Most of these boys are under sixteen years old, but when questioned they say they are from seventeen to nineteen years old. On the second floor —

Q. What street is the C. Company on? A. 156 Pratt street. The second floor is the welding room; the fumes of acid are especially bad.

Q. What do you mean by fumes, acid fumes? A. Just a minute, and I will explain the entire ventilation. The carbide system is used in welding. It is a sort of gas in a tank, and the workers hold the torch all day. The workers in this room wear glasses to protect their eyes from the fumes, and look very unhealthy. There is no ventilation of any kind, and there are only windows.

Q. They are closed, I suppose? A. Well, there was one, but even though it was not cold, it was closed that day.

There were several unprotected pulleys on different machines; pulley on sizing machine, particularly dangerous, — and also a fourteen-inch emery wheel with no protection whatever. That is all for the second floor.

Q. On the third floor about sixty boys are employed, fifteen to seventeen years old. Most of the machinery unguarded. Presses are run at a high rate of speed, and piece-work is in operation. There is no ventilation of any kind. One emery wheel, also unguarded. Quite a number of boys had their fingers missing.

Q. How many had their fingers missing? A. Probably four or five. I noticed a good many there.

Q. How about the toilets in this place? A. The toilets were in fairly good condition.

Q. How about the fire-escapes? A. They told me it was a fireproof building, so they didn't need any fire-escapes.

Q. How many stories high was it? A. Four stories.

Q. Were there no fire-escapes there? A. Not that I noticed.

Q. How many staircases were there? A. There were three staircases, quite wide; I think they are five feet wide.

Q. Wooden or stone? A. Metal staircases. That is, a concrete construction building.

The next is the C. E. H. Company. They are a branch, I understand, of the Crosby Company.

Q. Now, that building is also in another part of the city, where all their polishing and buffing was done. The polishing room in this concern was in one of the worst conditions. It is located in the back of an alleyway. They have an exhaust system, but it was not in good working order. In fact, the dust seems to fly out instead of going in.

Q. You mean instead of going into the exhaust it comes back again? A. Yes.

Q. How many work in this room? A. About sixteen people.

Q. Men or women, too? A. All men.

Q. Were they healthy or unhealthy? A. They did not look very healthy.

Q. You said one of the worst you have ever seen. Tell us what you meant by that? A. Well, it compared favorably with this foundry room of the Ray Manufacturing Company.

Q. You mean it was the same kind? A. It was the same kind.

Q. No ventilation? A. No ventilation.

Q. Dirty? A. Dirty, awfully dirty. And that was thick with dust; there must have been an inch of this lint dirt on the floor.

Q. So when you walked it stirred it all up? A. Yes, sir. Underneath it was hardened so that it was caked. Piece-work was in operation on buffing wheels. Artificial light used most of the day; the workers all looked unhealthy.

By Commissioner PHILLIPS:

Q. Were most of the laborers in these buildings foreigners, Mr. Ball?

The WITNESS: Well, generally, yes; they seem to be Polish and Hungarians.

By Mr. SMITH:

Q. Do you find the manufacturers here have less consideration for their help when they are foreigners than when they are Americans? A. They seem to, yes, to a certain extent. That is where there is the piece-work system in operation, and it simply means it requires the operator there and generally you find Polish and Hungarian people.

By Mr. ELKUS:

Q. Now, about the Jewett building, do you know where that is? A. Yes, the Jewett building is corner of North Division and Ellicott street.

Q. How many stories high? A. I think six stories high.

Q. How many people employed there? A. There are probably six hundred people employed.

Q. What business is that? A. General manufacturing business, printing, type foundry, machine shop; different concerns like that.

Q. What kind of a building is that, do you know? A. It is brick with wood floors.

Q. Brick, with wood floors? A. Brick with wood floors.

Q. How many staircases? A. There are two staircases in that building.

Q. Wooden, metal or stone? A. All wooden.

Q. How wide are they? A. About three feet wide.

Q. Any other means of getting out of the building in case of fire? A. Fire-escapes.

Q. Which side of the building? A. There are fire-escapes on both sides. There is one on Ellicott side and two on North Division.

Q. What kind of fire-escapes? A. Simply two iron fire-escapes with ladders, then you come down to the second floor and one of them you just drop from the fire-escape.

Q. How many feet do you drop? A. About twenty-five feet.

Q. You mean to say you would have to come down to the fire-escape on the second floor and then drop twenty-five feet to get to the ground? A. Or you can wait until the Fire Department comes along with a ladder and puts it up.

Q. These fire-escapes are straight up and down? A. Yes.

Q. Have you ever tried to get up or down? A. I did, but not during a fire.

Q. Were you able to do it? A. Why I suppose I could, but not in a hurry, only if I could take my time.

Q. How old are you, Mr. Ball? A. Twenty-eight.

Q. And you are how tall? A. About five feet ten.

Q. And you are athletic and healthy and strong? A. Fairly so.

Q. Now, are there any other buildings you want to describe? A. The Caxton building is located right alongside the Jewett building; the conditions there are practically the same.

Q. You drop from the ladder the same way? A. You drop from the ladder the same way; the supports in the building are wood. In fact, I understand they have to put supports in right along. This is so now.

Q. How many people are employed in the last building you spoke of. A. About 400.

Q. Now, in the case where they have the drop ladder on the second floor, tell us how it is located when you wished to use it. A. It is on a railing up even with the second floor.

Q. How would you get it down? A. You would have to stand on the ladder and use your weight so as to force it down. And when you are off it it would fly up.

Q. So you would have to hold it down before you got down? A. Yes, sir.

Q. Did you examine it to see whether it was in working order? A. I did not.

Q. Any other building? A. There is another building here. Shall I give the name of this building?

Q. Does it have fire-escapes? A. It is the Josiah Ross building, 1449 Niagara street. Four-story building used by seven or eight concerns for manufacturing.

Q. How many people are employed there? A. About 125.

Q. This building is at least twenty-five years old? The entire factory is honeycombed with wood partitions. No automatic sprinkler system in the building. Two stairways.

Q. Wood? A. Wood; one fire-escape on the side.

Q. Straight ladders? A. Straight ladders.

Q. Was that a drop ladder? A. No—well, you do drop.

Q. How many feet was the last platform of the fire-escape from the ground? A. About 25 feet—30 feet down there.

Q. So a man going down that fire-escape would be much worse off than if he was above? A. Yes.

Q. And the floors are wooden? A. The floors are wooden.

Q. How many stairways? A. One stairway.

Q. And that is wooden? A. That is wooden.

Q. The chairman wants to know whether there was a feather bed underneath on which the men could drop the 25 feet? A. Well, there ought to have been, or a mattress or something like that.

Q. What was there underneath that side walk, a flagging or what? A. Just an alleyway of cinders.

Q. Just an alleyway, a kind of pavement? A. No, cinders. This building is heated with coal stoves and gas stoves. The water closets were also in a filthy condition.

By Commissioner PHILLIPS:

Q. Was there a chance to flush them? A. Yes, there was, but they did not seem to work properly. The only ones I noticed were working there was up by the office, used by the office help.

By Mr. ELKUS:

Q. That is where the employers were located? A. Yes, sir. There is another building. The F. & T. building. The industry there is machine and boiler shop. About thirty workers in the machine shop now and when they are working full time about eighty.

The machine shop is a three-story building about 35 years old; walls, ceilings and floors in a filthy condition. The machinery is mostly unguarded, and artificial light is used practically the entire day.

The water closet is located in an alleyway, a wooden shed; simply a rail with running water to flush. Filthy and unsanitary.

Q. Now, Mr. Ball, you have described a number of factories. Are those typical of a great many factories you examined in Buffalo? A. Well, to a great extent. There are a few modern buildings.

Q. Very few modern factories? A. Yes.

Q. But most of the factories are like the ones you have described? A. Generally, yes. There is a boiler near this building, a one-story frame shed. No ventilation and the fumes of the forge fires permeate the entire factory. One water closet for fifty men. No ventilation. The water closet is exposed to the full view of the factory and in a filthy condition.

Q. You mean any one can see it? A. Yes.

Q. Not railed off, not partitioned off? A. No.

Q. Are women there, too? A. No, just men, 50 or 60 men.

By Commissioner PHILLIPS:

Q. Were they foreigners working there? A. No, they are Americans, I guess.

Q. Did you go in any factories in the metal trades where women were engaged in polishing and buffing? A. No.

Q. Do I understand there are some here? A. Not that I know of. I took the principal ones.

By Mr. ELKUS:

Q. Did you examine the Ferrer & Trefts Company factory? A. Yes, sir.

Q. Is that the one you last described? A. That is the one I last described.

Q. Were the closets in that way, too? A. Yes, sir.

Q. They were filthy and dirty? A. Yes, sir.

WILLIAM L. KENNEDY, called as a witness and being duly sworn, testifies as follows:

By Mr. ELKUS:

Q. Mr. Kennedy, what is your business? A. Business agent of the Bricklayers' Union.

Q. And how long have you been such agent? A. About four years.

Q. And how many men are there in your union? A. Sometimes they average 500; at the present time we have about 475.

Q. Mr. Kennedy, you have volunteered kindly enough to come before the Commission. Do you desire to make some statement to them? We would be very glad to hear what you have to say.

A. I was requested to come here in reference to scaffolding.

Q. Yes? A. My organization took the matter up, and they would like to have a law adopted not to allow any walls to go up any more than five feet for one scaffold, and not to allow any scaffold less than four planks wide.

Q. Do you want to state the reason for that? A. Well, the object in that is that scaffolding that goes up higher than five feet the men can look over and see their work without building a temporary foot scaffold. This foot scaffold is placed on temporary brick tiers without any mortar or anything to hold those tiers together and sometimes the plank will loosen or get away from the wall and project over those piers an inch and a half. A man would step on the end of a plank and it will tip up and he will fall and probably hurt himself to some extent.

Q. You want to urge upon the Commission the adoption of a law to that effect. A. Yes, sir.

Q. Is there anything further you would like to say? A. There is another thing I would like to have eliminated and that is in reference to closets that are connected with new buildings going

up. At this time of the year, there is no heating whatsoever in those closets, and there is no running water. I visited several jobs in the last four years where they would dig a hole in the ground on the lot that the building would be erected on and erect a temporary shed there; you would call it a wood-shed. Just a shed. Now, there is no accommodation at all except in this closet. There is in all probability thirty or forty men that would be employed on a building.

Q. That is very unhealthy and very unsanitary? A. Yes, sir, to my knowledge it is.

Mr. ELKUS: Any questions?

By Commissioner PHILLIPS:

Q. Under the Jackson bill, passed last winter, the contractors are required to put a railing around temporary scaffolding. To what extent is that being obeyed? A. It is not being obeyed at all, as far as I have been around since last April when the building season starts. I have not seen any railing whatsoever around scaffolding on any building.

Mr. ELKUS: We are very much obliged to you, Mr. Kennedy. Is there anything else you wish to say?

The WITNESS: I would like to say something in regard to the State Bureau being located here.

Q. Go right ahead. A. I have had occasions myself to go on buildings where there would be structural ironworkers up above our men. We would probably start on the first floor and they would be maybe four or five floors above, and the only covering for our men would be the planks up where the structural ironworkers would be working, and there would be a space probably of 16 inches apart. Now, when they are heating rivets, and the riveting heater is throwing the rivet up to some of the riveters, one of those rivets is liable to drop down and strike one of our men or probably another man of some other craft. I know of two cases where one of those rivets was dropped down a man's neck, a red hot rivet.

Q. Is there anything else, Mr. Kennedy? A. That is all I have to say.

Mr. ELKUS: We are very much obliged to you.

MRS. JAMES A. GARDNER, called as a witness and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. What is your full name? A. Mrs. James A. Gardner.

Q. What is your name? A. Mary Everett Gardner.

Q. Mrs. Gardner, what is your profession? A. I am a lawyer by profession.

Q. And you are the president of the Buffalo Consumers' League? A. I am the president of the Consumers' League and have been upwards of eight years.

Q. And have you been particularly interested in movements for the betterment of conditions for industrial workers? A. The object of the Consumers' League is the betterment of laboring conditions for women and children.

Q. And how does the Buffalo Consumers' League proceed to attain that object? A. By urging the enactment of legislation in conjunction with other organizations that are interested in the same work, and by endeavoring to have the laws which have been enacted enforced, by arousing public opinion, by investigation of factories and stores, and the reporting of violations of laws and other work which has any connection with the question.

Q. And the work of your association is purely voluntary, is not paid, or anything of that sort? A. We have one paid officer only; it is purely voluntary.

Q. Philanthropic, I should say. Now, you, yourself, have made some investigations, have you not, some time ago? A. I have made investigations, and the executive secretaries of the League, from time to time, have made investigations and inspections under my instructions.

My personal investigations were made three or four years ago, and, of course, I constantly keep looking into cases, but I do not make regular investigations.

Q. So you are personally familiar with the condition of workers in the city of Buffalo? A. I think I am.

Q. And I suppose you have given particular attention to the workers that are women and children? A. Yes.

Q. Will you please tell the Commission what you have ascertained, particularly in regard to the health of women who work in factories? A. I would like to speak with regard to the length of the hours which women work in the various factories, especially in factories where the work is piece-work, and where, in order to earn a minimum wage, there must be a constant speeding up and a constant concentration on their work.

The workers in factories are, a large proportion of them, girls under 25 years of age. I want to pay particular attention to girls from 16 to 21, working in factories. They are not developed, and they are not strong, and consequently the speeding up of the work, and the concentration, in order to earn a decent wage, are very detrimental to their health.

Q. What becomes of them after they are 25? A. I have found, and I have had personal experience, that girls who work in factories up to that age, are not fitted for other kinds of work. They are not fitted for housework, they are not trained for it, and then they are not able to do it. They tire very easily and wear out at their work.

I find that a girl can keep at certain work in the factory, at the work for which she is trained, but the minute she leaves that work she is not fitted for other work.

Q. But you said, Mrs. Gardner, that you find that they work in these factories until they were 25? A. Sixteen to 25.

Q. What becomes of them after 25? A. I really do not know, unless they take up other lines of work.

Q. Do they get married? A. Many of the girls do get married; the Polish girls marry before they are 25, as a rule.

Q. Pardon me for interrupting. Go right on with what you were saying. A. What I was saying about their marriage comes in later.

I would like to mention the insufficient number of factory inspectors. We have two at Buffalo, and they inspect a large district. The man reports violations of the law and that

report goes to Albany. We cannot report the violations direct to the inspector here, so that, after the violation has been reported, necessarily it is sometimes a very long time before anything is done. I believe there should be more direct inspection. There is to be an office now in Buffalo, which will help out some.

I have been in factories where there had been no previous investigation for a year. I believe that prevails to a great extent. It is impossible for the factory inspectors to cover the factories. There should be a license issued to every factory, because the factory inspector must depend upon finding out, or having some one report to him, the establishment of a factory.

Q. You mean that now the only way you can find out that a factory exists is by either happening to come across it or finding it out in some haphazard way? A. Yes.

Q. So that you think, and you recommend, that each factory should be licensed by some department of the State or city before they can undertake the work, and after an inspection of their building? A. Yea.

Q. Would you be in favor of a license, renewable from year to year? A. I should think so. That would abolish a great many violations of law in regard to ventilation and sanitation, because then, of course, it would be easy to compel them to comply with the law.

Q. Now, if it is not possible to have the factories licensed, Mrs. Gardner, would you be in favor of registration? A. That would be a good idea. I think that ought to be placed in some State department.

I think the Factory Law is inadequate, in that it does not allow the factory inspectors to go far enough. We are often unable to get convictions in court because we cannot prove violations of the law in regard to ventilation and sanitation. In every violation it is very difficult to convince a judge, who does not see the factory, that the ventilation is not sufficient or that the sanitation is not sufficient or that the toilets are in bad condition.

There should be some authority given to the inspectors, or to the district inspectors, to have the places cleaned out. You cannot do that under the present law, because he cannot order these improvements himself.

Q. When an inspector discovers, for instance, some of the unsanitary conditions that have been testified to here to-day, such as filthy toilets, would you favor a law permitting him to order their instant cleaning, and if not obeyed within reasonable time, say 24 hours, to order the place closed? A. I would be very much in favor of that.

Q. Would you be in favor of a complaint being sent to the sub-office, in Buffalo, for instance, and not having it sent to Albany? A. Very much in favor of it.

Q. Proceed, Mrs. Gardner. A. I am very much in favor of the reduction of the hours of women and children workers. For women that work in factories, especially standing during the day at work on which she must concentrate very closely in order to earn a minimum wage, I think 48 hours a week is plenty long enough, at least for a woman under 25 years old.

As to the speeding up, I am also in favor of there being no piece-work done by workers. I believe there should be a minimum wage which workers should have, which would obviate the necessity of their speeding up in order to earn a descent wage. So I believe there should not be piece-work, especially at machines.

Q. You mean for all persons, women and children? A. Yes.

Q. Now, as a lawyer, do you think any law could be passed which would be constitutional, to that effect? A. There have been minimum wage boards created in England.

Q. They have no constitution over there? A. No. Massachusetts is investigating. I would be very much in favor of a Commission such as Massachusetts has, investigating into that question, and into the long hours and the speeding up work. The law, in my opinion, must determine —

Q. The regulation of hours? A. The regulation of hours.

Q. You would be in favor of not permitting any longer than 48 hours' work for women and girls, or women and children? A. Women and children.

By the VICE-CHAIRMAN:

Q. You would not deem it advisable to make this 48 hours if the shortening of the work would have something to do with the salary? A. Of course the reduction of the hours would neces-

sarily reduce the wage. That would have to be remedied by the creation of a minimum wage board.

By Mr. ELKUS:

Q. Are you in favor of children between the ages of fourteen and sixteen being permitted to work in manufacturing establishments? A. I am not.

Q. They should not be permitted to work at all? A. I believe children under sixteen should be compelled to go to school.

Q. Our public school system only takes care of children until they are fourteen? A. Of course, I think children should not go to work before they are sixteen, especially girls.

Q. Are you familiar with what are known as continuation schools? A. Not personally familiar.

Q. You have heard of them? A. Yes.

Q. Would you recommend, for instance, that where children are employed between the ages of fourteen and sixteen that they should not be employed longer than say half past three in the afternoon, and then be compelled to attend a continuation school from say four to six. A. Yes, I should feel that they should attend the school in the day-time, but not at night.

Q. That is what I am referring to. Mrs. Gardner, have you considered the question of women who are pregnant being allowed to work for any period just before their confinement or afterwards? A. I think I would rather favor their not working, but if they could do their work under better conditions it would depend upon the time she worked after her confinement.

Q. Under any circumstances should a woman be permitted to work in a factory right up to her confinement? A. I don't think so.

Q. How long should she be prohibited from working before and after confinement, in any case? A. I should think in no case a woman should work longer than six or seven months — that is, two or three months before her confinement.

Q. Will you proceed? A. I think there should be a report of all accidents, however minor; that would stop accidents. The present law requires the report of an accident only in those cases which incapacitate the laborer more than half a day. I believe

there should be a report of all accidents, however slight; that would keep us informed of the dangers of the machines with which we are not familiar and would obviate a great evil.

I would like to impress on you that I think the elimination of the speeding up would also do away with a great many of the accidents due to the machines doing such fast work, because it would not be necessary for them to work so rapidly. I think the speeding of work is very detrimental to women. Standing at work is also detrimental. Seats are often provided for women and men, and they can work at many of the industries while seated. But, in order to earn a wage, they must work rapidly and consequently they must stand up. That, of course, could be obviated in some manner, but where a woman stands ten hours a day any sensible person knows it is not good for her.

Q. Mrs. Gardner, have you had some experience with the Labor Department personally? A. I have had a great deal of experience with it.

Q. What has been your experience when you make complaints to them? How quickly have they been acted upon? A. They have always been acted upon, but very slowly. For instance, I examined a factory which had, to my mind, inadequate fire-escapes. That was in the spring; my letter was acknowledged, and in August I received a reply that the place had been investigated and proper fire-escapes provided.

Q. That was about three or four months after? A. That was about three or four months after.

There is one more thing. We find a violation of other labor laws or something like that, and we would like to report it immediately, but the inspector here cannot do anything.

The VICE-CHAIRMAN: Do you know whether or not that order has been carried out?

The WITNESS: I do not know.

By Mr. ELKUS:

Q. Do you know how long the building remained in the condition it was in when you made the complaint before it was

remedied? A. The building had not previously had as good fire-escapes as it had at the time of the complaint. Those have been remedied, as I understand, in compliance with the complaint to the department, and even these were not adequate.

Q. How long had it been in the condition which required change before your complaint? A. Well, I suppose it has always been so. It was a very old building.

Q. How many people were employed there? A. There have been, I suppose, upwards of 80 or 100 girls. It was a building that had a number of factories in it. I had reported this one factory.

Q. Now, have you any suggestions for improvement in inspection methods? A. I think there should be some way in which the manufacturer should not know of the coming of the inspector. How they do know, I am not informed. There does seem to be a knowledge among the manufacturers that the inspector may be looked for at a certain time.

Q. They know it? A. They know it, and the factory is very much cleaned up, and the children are sent out.

Q. What do you mean when you say that the children are sent out? A. The children working there who are of an illegal age.

Q. They are hidden, as a rule, or told not to come? A. They are told to come and are sent home.

Q. Have you known of cases where they have been put in elevators and hidden between the floors? A. I have known of a case where children have been sent out into a small park adjoining, to play during the visit of the inspector.

Q. Is that the only time that they were ever sent to the park? A. I rather fancy it was.

Q. Have you any information as to how the manufacturers know when the inspectors are coming? A. I have no knowledge as to how they know, but they do know.

Q. Have you any information on the subject? A. I do not know, unless they come periodically.

Q. Then you would suggest, I take it, Mrs. Gardner, that the method of assigning inspectors should be changed very much? A. Very much, very radically. I believe an inspector should

cross the street, if they think there is a violation on the other side, instead of continuing down one street and up another.

Q. You think they ought to use their eyes? A. Yes.

Q. And common sense? A. Yes.

Q. If instead of these inspections which may be called formal inspection they did actual inspection, don't you believe that a great deal more could be done? A. A great deal more could be done, but I do not think the inspectors are adequate in number. The inspectors cover too wide fields. I do not think a man can do it efficiently.

Q. Is there anything further, Mrs. Gardner, you would like to recommend to the Commission? A. I think I have covered the points.

Q. I believe your husband is a physician? A. He is a physician.

Q. So you have his aid and advice in reference to this matter? A. Yes.

Mr. ELKUS: Are there any questions by the Commission?

Commissioner DREIER: I want to ask Mrs. Gardner whether she can give us any idea how many inspectors would be needed in Buffalo? A. I have considered the matter since I knew this Commission was coming here, and I thought that at least five or six in Buffalo —

Commissioner DREIER: Regularly appointed?

The WITNESS: Regular inspectors.

Commissioner DREIER: In regard to the employment of children under the legal age, have you any suggestions or any recommendations as to how convictions could be secured against the employer in spite of the fact that the child may not be working when the inspector arrives in the factory? I believe now he has to find the child at work. A. Now he must find the child at work. I think we should have a law which would permit the punishment of the parents. We have a law placing the work of the child under the parental delinquency law. It is very difficult

to get convictions in courts, very difficult to get testimony to show the parent has been delinquent, and so convince the judge that the parent had been delinquent. I think the law should be more definite.

By the VICE-CHAIRMAN:

Q. Do you believe that for \$1,200 a year you could secure the kind of a man from the standpoint of ability as a factory inspector who could be trusted with this arbitrary power to close a factory? A. I think the compensation is not large. If you want an expert or an experienced man, you will have to pay him. I think the salary is quite small.

Mr. ELKUS: I think the Chairman is pointing more to the qualification of the man with this arbitrary power. That would require a man of some character and standing. Of course, eliminating all else, if you gave the man arbitrary power and he was not the right kind of man, it might be the means of oppression and blackmail? A. I do not think the salary would necessarily make the man any more efficient.

Q. But you would get a better man if you paid a better salary?

A. You might and you might not. Salary is not the main thing.

Q. You think that a first-class man could be obtained from a civil service examination? A. That is one means of obtaining them. I believe if you could not obtain the man in one part of the State you could get him elsewhere.

Mr. ELKUS: Is there anything else?

By the VICE-CHAIRMAN:

Q. In regard to piece work of which you have been speaking, is that detrimental to the health of the worker? A. I feel very strongly on that point. I think it is detrimental and causes many accidents in factories, and incapacitates girls for other work. A girl may be good if she keeps to the work that she has been trained to for a number of years, but the minute she goes to do other work they find she is utterly unfitted for it. It unfits her as a citizen later

Q. You think it unfits her as a citizen later, as a wife or a mother, or raising a family? A. I think it does.

Q. As a matter of fact then, in order to get an ordinary wage, they have to speed up. A. In many factories a girl is not allowed to work at a certain line of work after she has reached a certain wage. Then she is put on other work. Especially on a box factory, the girls seldom get over \$5.50 or \$6, and then they have to go to another kind of work.

By Mr. ELKUS:

Q. You mean, if these girls are proficient in one line they have to go to another and so on until she gets efficient in that? A. That is the idea.

Q. So that she cannot earn more than the minimum wage? A. No more than the minimum wage.

By Commissioner PHILLIPS:

Q. Then that also requires some speeding up? A. That also requires some speeding up except she is not so accustomed to the other work and cannot make so much.

By Mr. ELKUS:

Q. Do you believe that work in factories as it is done now, is detrimental to women when they become mothers and wives? A. I think that under the conditions in factories that it is detrimental. I think there might be conditions where it would not be so detrimental.

Q. There may be conditions where it would be all right? A. If the hours were shorter, and the conditions better.

By Commissioner DREIER:

Q. Are you able to give us the cost of living for the girls in Buffalo? A. We have gone into it and have made a thorough investigation. We investigated largely the conditions of the girls in stores and I suppose the living conditions for them would apply to the living conditions of the girls in factories.

We did not feel that any girl could live properly, have proper food and proper clothes and proper recreations and medical attendance, on less than \$8 a week.

Commissioner DREIER: Can you give us any idea how many girls in Buffalo get as high as that and how many get less than that? A. The average wage in factories does not exceed \$5. However, it should be said that the majority of the factory workers in Buffalo live at home, and consequently are not required to turn in so much for board as the girl who is living away from home.

Commissioner PHILLIPS: In other words, the girl who has to pay her own board has to compete with the girl who lives at home?

The WITNESS: Yes.

The VICE-CHAIRMAN: One last question. What would be your suggestion for the legislation that would enable the Commissioner of Labor to get the service of inspectors that have an interest in this work? A. I think that the Commissioner of Labor should have the power to appoint persons who are properly qualified for the work of inspection.

The VICE-CHAIRMAN: At a salary?

The WITNESS: At a salary if necessary, or without a salary if necessary.

The VICE-CHAIRMAN: At any rate, it ought to be considerably more than \$1,200 a year to have the right kind of an inspector?

The WITNESS: I should think so.

I want to add that the conditions which have been testified to here, by the various inspectors, have verified all the conditions which we have found in our investigations.

By Mr. ELKUS:

Q. In other words, from your investigations these inspectors have not overdrawn the facts at all? A. Not at all.

Mr. ELKUS: Mrs. Gardner, we are very much obliged to you, and hope you will be able to attend the further sessions of the Commission.

Recess until 2:15 P. M.

BUFFALO, N. Y., *November 27, 1911.*

The Commission met pursuant to adjournment, 2:30 o'clock P. M.

Present:

Same as before

BERNARD J. McCONNELL, called as a witness, being duly sworn, was examined and testified as follows:

By Mr. ELKUS:

Q. What is your position in the Fire Department? A. Chief of the Fire Department.

Q. How long have you been Chief? A. Nineteen years.

Q. Will you give your full name? A. Bernard J. McConnell.

Q. What jurisdiction has the Fire Department over factory buildings, with reference to safety in case of fire? A. They have the authority to go there, and see whether there are fire-escapes on the building, and if they are not there, order them on.

Q. What else, besides ordering fire-escapes in case you see fit? A. That's about all.

Q. Do you exercise that power, or is there some Board? A. We act for a Board.

Q. How many members are there in the board? A. Three.

Q. Is it a bi-partisan board? A. Yes, sir.

Q. What are they, Republicans or Democrats? A. Two Democrats, one Republican.

Q. They are appointed by whom? A. By the Mayor.

Q. Yours is a civil service place, is it? A. Yes, sir.

Q. You came up from the ranks? A. Yes, sir.

Q. And you are the executive head of the Department? A. Yes, sir.

Q. And practically the authority to order fire-escapes on buildings devolves upon you? A. Yes, sir.

Q. You do as you think proper under the circumstances? A. Well, we have battalion chiefs, who have charge of the battalion. The city is divided up into eight districts, and each battalion chief has supervision in his district.

Q. What is the system under which you work in ordering fire-escapes? A. If he finds there is a building in his district that needs a fire-escape, he serves them with notice to erect a fire-escape.

Q. How does it come to his attention? A. In different ways. If anybody complains of a building, or if he notices a building is changed from one business to another, it will probably be necessary to have a fire-escape placed.

Q. Is there any regular inspection made of buildings? A. Yes; the Fire Department's orders are to inspect buildings in every district; battalions keep track of them.

Q. Every battalion chief is ordered to have his men inspect the buildings of the city? A. They are supposed to do that themselves.

Q. They themselves? A. Yes.

Q. How large a district does each battalion chief cover? A. We cover forty-two square miles, and there are eight men to do that work; forty-two square miles divided up to do that work as nearly as we possibly can divide it.

Q. I suppose the trouble is the men have too large a district to cover? A. No, not necessarily; never found it that way.

Q. Do you have many complaints about the absence of fire-escapes? A. No, sir.

Q. You do not? A. No, sir.

Q. Have you made any attempt at all to ascertain what buildings require fire-escapes, which have not been supplied with such? A. Yes, sir.

Q. What have you done with reference to that? A. After that New York fire, I thought it would be a good idea — the papers kind of advocated that a little bit — that we inspect the entire city. Each battalion chief inspected all buildings in his battalion and made a report on them all, and where buildings needed fire-escapes, he ordered them and they were placed where he ordered them.

Q. So that you now desire the Commission to understand that every building in the city of Buffalo, that ought to have fire-escapes, has them? A. Yes, sir.

Q. That is after a detailed inspection since last March? A. That was an extra inspection. We wanted to be absolutely certain that there weren't any buildings of that kind.

Q. Have you found any number of fire-escapes without drop ladders? A. There are a few; they were erected years ago and there hasn't been any erected in the past fifteen years, without drop ladders.

Q. A drop ladder could be easily added to an existing fire-escape? A. Yes; there probably are a few, but I believe where they do exist there are other fire-escapes on the buildings, that were ordered after those ladders were built.

Q. Of course it is impossible for you personally to look after these matters yourself; you have to rely on your deputies? A. I have to tell them about that.

Q. Whatever happens in the city with reference to fire-escapes, you yourself can't examine all of them personally? A. No, but if there is an important place, I go with the battalion chief and inspect it.

Q. Where there is a complaint made? A. Yes, sir.

Q. Outside of that, you haven't the time or opportunity to go? A. No, sir.

Q. You are not supposed to? A. No.

Q. And you have to rely necessarily upon your battalion chiefs? A. Yes, sir.

Q. Now, as I came along the street here, I noticed the Franklin Hall, right at the corner; do you know where that building is? A. Franklin Hall?

Q. Yes; right at the corner, opposite the City Hall, and I noticed on the front of that building that there was a straight up and down fire-escape, without any drop ladder. A. Maybe.

Q. Of course, you realize, Chief, that without a drop ladder, a fire-escape of that kind is a death trap? A. Were there any other fire-escapes besides that?

Q. None on the front of the building. A. Is there any in the rear?

Q. I didn't look. A. I don't just recall the building to my memory; Franklin is a new name.

Q. You can look right out of this (indicating) window and see it. A. (The witness goes to window to look at building.) Yes.

Q. Do you see it? A. Yes; now you will find another fire-escape on the side of that building.

Q. And neither of them, front or side, have any drop ladder, so a man would have to get down about twenty feet after he got to the bottom rung. A. I wouldn't allow such a fire-escape to go up, but they have been on there before I was born.

Q. Is there any reason, Chief, why your battalion heads ought not to have seen that and reported it to you? A. I don't know of any reason.

Q. Of course, as I say, you cannot be held responsible for that. Now, let us suppose there was a six-story building in this city, where four or five hundred men worked every day. That building ought to have fire-escapes on, ought it not? A. I should think so.

Q. Would it surprise you, then, very much to know that a witness testified here this morning that such a building did exist and had no fire-escape? A. It would be news to me.

Q. Well, I will give you that information. That was the Buffalo Forge Company's factory. A. Broadway?

Q. Yes; 490 Broadway; and it was further testified to here, that the only means of getting out or getting in that building ordinarily was over wooden bridges, which led from one building of the same company, the pattern house, to the first, second and third stories of this six-story building. Are you familiar with the Jewett Building? A. Yes, sir.

Q. Has that building got fire-escapes? A. Yes, sir. That is, if it is the Jewett Building that you speak of on Ellicott street.

Q. That building, Chief, has an iron fire-escape on like this one on the building I showed you right opposite the City Hall, and it has no drop ladder from the lowest balcony, which is about 25 feet

from the ground. That ought to be remedied, ought it not? A. Yes.

Q. Of course, you realize that a fire-escape of that kind is worse than none at all, because a man that travels down the fire-escape comes to the end and he is worse off than if he did not start? A. I will tell you about that building. We never figured anybody coming down that fire-escape. That was put on there years ago. The building adjoining the one you are talking about has four fire-escapes on it, and there are run-ways from one building to another. My experience teaches me to believe that if there are two buildings touching each other, with a run-way from one to the other, if one or the other catches fire, that run-way is the nicest thing for women to cross from one building to another that you can have. It is way ahead of going down a fire-escape. They won't be afraid to do that; they go into the building that has not got the fire.

Q. I understand you to say that a run-way from one building to another would be the best means of egress in case of fire. That refers to the building at 490 Broadway which has such a run-way, but that run-way in that building is the only means of getting out of that building; they have no stairway to the street and that run-way is only on the first, second and third floors, though there are six floors in the building. Such a run-way, of course, ought to be fireproof, ought it not, made of iron or some metal? A. Well, I will tell you now. You gentlemen don't want to loose sight of the fact that if a fire starts, people are not going to stay in that building to wait till that run-way gets burning.

Q. I understand that; nobody stays in a building that is burning if they can get out, but you take a building like this first one at 490 Broadway, with no fire-alarm system in it, so the people would not know there was a fire if one occurred on the first floor, people on the sixth floor wouldn't know anything about it in all probability until it was up to the third floor? A. I don't think they would.

Q. Now, you see the only way they can get out is by going down to that third floor, and going across that run-way. If the run-ways are of wood, and the staircase is of wood also, they would be in pretty bad position in case of fire? A. If they didn't get notified in time.

Q. We realize you want to do everything that can be done to protect the life and safety of people who are working in factories.

Don't you believe it is necessary almost to compel the owners of that building first to have an outside fire-escape of some metal with a drop ladder to the ground, and second to make those run-ways of metal instead of wood? A. I think it would be an improvement.

Q. Don't you think it is necessary? A. Yes.

Q. What battalion chief is there in that district? A. Battalion chief about a block away.

Q. And did he report to you that all the buildings were thoroughly safeguarded in case of fire? A. Yes, sir.

Q. What suggestion have you to make, Chief, to the Commission, to remedy the condition of these buildings which have been pointed out to you? What do you think could be done to remedy it? I have given you only one or two buildings of a number which have been called to the Commission's attention which have similar conditions? A. I think you have picked out the worst there is in Buffalo.

Q. Well, they were all picked out by accident; we had no design about it. A. Well, you got inspectors out all right.

Q. Yes, but your department has had inspectors? A. Yes.

Q. If there are any more buildings like that, of course, you realize they ought to be remedied and changed right away? A. I certainly do, and I think if there is any remedy for the Caxton Building you spoke about it would be to replace the building, because they have got so many tenants in there, and so much combustible stuff in there. I could not make any recommendation without cleaning it out.

Q. Have you any authority to order a sprinkler system? A. I did not have until this new law.

Q. That gives you authority now? A. Yes, sir.

Q. Are you in favor of a sprinkler system? A. I certainly am.

Q. What would your recommendation be? A. The only recommendation there is to have a law to compel all factories to put sprinklers in.

Q. You would be in favor of having a law enacted by the Legislature, compelling all factory owners or proprietors to install a sprinkler system in factories that are how many stories high? A. Anything over two stories. I think it is a paying question to the people that put it in; pays for itself.

Mr. ELKUS: Any other questions to the Fire Chief?

By Commissioner DREIER:

Q. I would like to ask what he thinks of a fire wall between buildings or in the same building, with separate entrances and elevators? A. A fire wall is a good thing to have.

Q. Would you advise having a law making that compulsory? A. I don't know whether that would be a proper question to ask me. I don't want to interfere. The law-makers ought to take care of that. We are here to put out fires, and not tell people how they have got to spend their money.

Q. How far does that Sullivan-Hoey bill cover Buffalo? Have you got a Fire Prevention Bureau, too? A. No.

Q. What do you think of having a Fire Prevention Bureau the way they have in New York now? A. They are a good thing to have. The more of those things you have, the better it is.

Mr. ELKUS: Any further questions?

Q. Anything further you want to suggest to the Commission, Chief? A. No, sir.

Mr. ELKUS: Thank you very much.

CHARLES A. BOOTH, called as a witness, being duly sworn,
testified as follows:

By Mr. ELKUS:

Q. What is your full name? A. Charles A. Booth.

Q. What is your business? A. The office manager for the Buffalo Forge Company.

Q. How long have you been office manager? A. four years.

Q. Where is your factory? A. At 490 Broadway.

Q. How long have you been located there? A. The company?

Q. Yes. A. Thirty years; 25 or 30.

Q. You have attended voluntarily the hearing of this Commission? A. Yes, sir.

Q. Did you come because of any testimony that was given this morning? A. Yes, sir.

Q. You had heard the testimony? A. No, sir.

Q. How did you happen to come? A. I was informed that our firm was mentioned in the testimony this morning.

Q. Now, Mr. Booth, how many buildings have you at 490 Broadway? A. There are six large buildings and one small one, I believe.

Q. There is one building called the pattern building? A. Yes, sir.

Q. Is it called a pattern building or pattern house? A. Pattern shop.

Q. Connected with that building is another building; what is that called, foundry building or what? A. There is one building on each side; one is the five-story building in which the office is located, and on the other side is the six-story building I have heard mentioned this afternoon.

Q. Now, we will take up this six-story building. Will you tell us how large that is? A. I should say about 60 by 200.

Q. And it has six floors? A. Yes.

Q. What is located on these floors? What is done there? A. The first floor is a machine shop; the second floor is a shipping room, and in the upper floors are the work of assembling.

Q. How many men are employed in those six floors? A. Between 150 and 200; certainly not over 200.

Q. At the present time? A. Yes, sir.

Q. How many staircases are there in the building? A. There is one staircase running between each floor.

Q. And that is a wooden staircase, is it? A. Yes, sir.

Q. And are the floors wooden in the building? A. Yes, sir.

Q. Brick walls? A. Yes, sir.

Q. The way to get in and out of that building is through the pattern shop, isn't it? A. There is one opening into the pattern shop, also a number of other entrances.

Q. Where are the other entrances? A. On the first floor there are three entrances in use.

Q. Where do they lead to? A. One leads into the pattern shop building; one into a court, and then into another building, the

erecting shop, and the third entrance at the back end; that also leads into the erecting shop.

Q. Well, when you say leads into, what shop do you call it?

A. The third one opens directly into the erecting shop.

Q. It connects directly with it? A. Yes, sir.

Q. Both of these other doors that do not lead to the pattern shop are in the erecting shop, next to the other building, next to this six-story building? A. The second door that I mentioned leads into an enclosed court, not directly into the erecting shop.

Q. Well, the way the workmen get in and out of the building, ordinarily is through the pattern shop, is it not? A. They go in and out through the erecting shop, as a rule.

Q. There is no direct entrance to this building from the street?

A. Not in use, no; there are doors.

Q. But they are locked or closed? A. Yes, sir.

Q. Now, the entrance to the pattern shop is either a gangway or balcony of some kind, isn't it? A. On the second floor it is.

Q. And there is one on the third floor? A. There is a bridge leading to connecting buildings on the second, third, fourth and fifth floors, so that the men do not have to go downstairs to get out of the building.

Q. You say there is a bridge on the second, third, fourth and fifth floors, a wooden bridge on each floor? A. Yes.

Q. Is that out of a window? A. Out of a door, a full-sized door.

Q. Is it kept open or closed? A. Always kept open.

Q. That leads into the pattern shop? A. On the second floor. I said the upper floors cross over the pattern shop, into the five-story building on the other side.

Q. And the bridge is how long? A. The width of the pattern shop. I should say about 75 feet.

Q. So, then, on three floors the bridge is 75 feet long, is it? A. Yes, sir.

Q. On the second floor it is how long? A. Eight or ten feet — eight feet.

Q. And on the ground floor you may walk directly into the pattern shop, or is there a space in between? A. There is a space, a little alley in between the buildings eight feet wide.

Q. A closed-in alley? A. Yes, sir.

Q. That is there is no egress from the alley? A. No, sir.

Q. If the men get down in this alley and there should be a fire around them, there would be no way of getting out; they would be caught in a trap? A. It is simply a passageway; they would not go in there if there was a fire.

Q. Suppose in case there was a fire; none of these bridges are fireproof, are they? A. No, sir.

Q. They are not made of metal? A. No, sir.

Q. Is there any provision made for the men getting out of the building in case these bridges caught fire? A. None, except the stairway, I believe.

Q. The wooden stairway would lead the men down into this alley from which there is no way of getting out? A. There are two other entrances.

Q. Or they would have to get in the other building? A. Yes, sir.

Q. Isn't it possible to provide a means of egress to the street directly from this building? A. Well, certainly, there are doors there.

Q. Which are blocked up? A. They are not blocked up, but they are kept closed and locked.

Q. You have no fire-escapes on the outside of the building at all? A. Not on that building.

Q. And never had any? A. No, sir.

Mr. ELKUS: That is all. Any questions?

The WITNESS: Can I offer something further?

Mr. ELKUS: Surely.

The WITNESS: I think the statement was made that there were 400 or 500 men in that building. I would say that the number would be between 150 and 200 out of which more than two thirds are on the first floor. The upper floors have very few men on, not more than 20 on any floor.

By Commissioner PHILLIPS:

Q. The statement was made that there was no means of ventilation in that building except the window. A. Not true.

Q. You had a ventilating plant there? A. Yes.

Q. Describe that. A. Consists of a large fan, pumping fresh air in the building.

Q. You pump it into the building instead of driving it out?
A. Yes, sir.

By Mr. ELKUS:

Q. Where is that ventilating system, what floor? A. It is in the building adjoining, but the air duct connecting comes from that, then that leads into and on to each floor of that six-story building.

Q. You mean there is an air duct on each floor of the building?
A. Yes.

Q. The plant which supplies it is in some other building? A. Yes, sir.

Q. Does it come across these buildings? A. No, sir.

Q. How does it enter? A. Enters the building by the ceiling of the first floor.

Q. One duct? A. One large air duct.

Q. When the man was there did he speak to you about the bad ventilation? A. No, sir.

Q. Did you see the man when he was there? A. I saw him in the office; I did not go into the factory.

Q. Have you any ventilating plant in your foundry? A. No, sir.

Q. None whatever? A. No, sir.

Q. Where are the toilets in this six-story building? A. One on each floor, about midway of the side.

Q. In this machine shop and foundry where are the toilets? A. On one side about midway down the length.

Q. Is it clean? A. I have not been in there in quite some time.

Q. Is it ever inspected? A. I assume it is.

Q. Well, do you know anything about it? A. No, sir.

Q. You had a machine there for melting lead. In which building is that? A. That is in the erecting shop, the one adjoining the six-story building.

Q. How many men work at that machine? A. One.

Q. It has been testified to here that this man said that he never washed his hands; that he ate his food and went home with the lead

on his hands, and he had never been told that he ought not to. Do you know anything about that? A. No, sir; I do not. I saw him in the company of some of the members of this Commission Saturday afternoon.

Q. That is the only time you ever saw him? A. I have seen him frequently before; I never paid any special attention to him.

Q. Is there a hood over that part where the lead is melted? A. No, sir.

Q. Mr. Booth, are any of the toilets inspected by anybody in charge of your place, to see whether they are kept clean or not? A. I can't testify to that.

Q. Is it anybody's business to keep them clean? A. Certainly.

Q. Whose? A. The chief engineer.

Q. Well, he does not do it himself, does he? A. No, he doesn't.

Q. Are the workmen themselves who work in the foundry and other places expected to keep the place clean themselves? I mean are they expected to do the cleaning, or is some one especially hired for the purpose? A. The laborers' gang have everything of that kind in their charge; it is done by them under directions of the chief engineer. The workmen in the different departments would not be expected to do it.

FRED C BOLAN, called as a witness, and duly sworn, testified as follows:

By Mr. ELKUS:

Q. What is your full name? A. Fred C. Bolan.

Q. You are connected with the Blacksmiths' Union? A. Yes.

Q. And have been for how long? A. Four years.

Q. How many members are there? A. I have been connected for the last fourteen, but have had the management of it the last four.

Q. How many members are there of that union in Buffalo? A. 500.

Q. You desire to make some statement to the Commission with reference to the ventilation of the blacksmiths' shops? A. Yes, sir.

Q. Will you be kind enough to be as brief as you can, for we are very much pressed for time? A. I certainly will. In general, the blacksmith shops are very poorly ventilated. The fires in general have no hoods to carry away the smoke. There are no suction fans as a general rule in any of the blacksmith shops, both large and small shops, either in the railroad shops or contract shops in the city. Also that is the case of the furnaces which are used at the present time. Only the up-to-date furnaces are put in the shops at the present time and even some of them have no hoods to carry away the fumes of the chemicals that are used for case hardening, such as bone dust or leather. All of these odors come out of the furnace and spread out in the shop and in that way cause many of our men to lose a good deal of time because of sickness. That is practically the general condition around the city of Buffalo, and they don't seem to take any steps to do anything; that is, they do not do anything to remedy what is going on at the present time.

Q. Have you anything to suggest to this Commission? A. Yes; I suggest that there should be a hood over all blacksmith fires that are used; also over all furnaces that are used, to carry away the smoke, gas and different fumes instead of having them get around the shops. That is the only thing that I see, to have practical hoods over the fires; also suction fans to draw the smoke, fumes and so forth out of the shop, and that isn't done at the present time as a general rule.

Q. Do you recommend legislation to that effect? A. I do; and also more thorough inspection of the shops in general, in regards to steam hammers and such things as that; that is, steam hammers in general, and different things in blacksmith shops which should be inspected, which aren't inspected now —

Q. Would you recommend the licensing of all manufacturing establishments? A. In what way?

Q. That some authority, either the State or the city, should license each manufacturer before he is allowed to do business?

A. I could not just say at a glance. But I do believe there should be an inspection of those shops at least once a month or once in two months, instead of once in five or six years. I have worked in shops and have never seen an inspector come in five or six years, unless he came in after I had gone home.

STANISLAUS CZASTER, called as a witness, being duly sworn, testified as follows:

By Mr. ELKUS:

Q. What is your full name? A. Stanislaus Czaster.

Q. What is your business? A. I am business agent of the United Garment Workers of America.

Q. Located in Buffalo? A. Yes.

Q. How many members are there attached to your union here? A. About 350.

Q. How many factories are there in Buffalo which manufacture garments? A. About five manufacturers, but they have got contractors working for them just the same.

Q. Now, you have made investigations of the garment trade in this city? A. Why, in some shops I did, but in some of them they are not organized and I can't get into them.

Q. What did you find the conditions to be? A. There is no ventilation, and I want to say that there are no cuspidors in those shops, and of course, the majority of men they chew tobacco, and they spit on the floor.

Q. That makes dirty floors? A. Yes.

Q. How about smoking while they are at work? A. Why, smoking, there is very little; I believe there is no shop in Buffalo where they smoke.

Q. They do it on the sly? A. Yes; sometimes go into the toilet.

Q. How about refuse on the floor? A. What do you mean?

Q. The cuttings? A. It is all along the floor.

Q. That is a great element of danger in case of fire, this inflammable stuff all over the floor? A. Yes, sir.

Q. Does that exist generally in all the garment manufacturing places in Buffalo? A. Yes.

Q. They don't gather it up and put it into a box. A. No.

Q. Or a receptacle? A. No, sir.

Q. Would you favor that all clippings and refuse which are inflammable should be placed in a fireproof receptacle? A. Yes.

Q. And not allowed to be on the floor? A. Yes.

Q. What else have you discovered? A. I want to say there is some shops there are toilets right in the shop.

Q. Right in the middle of the shop? A. Right in the middle of the shop; of course, there are only side partitions, and there aren't enough toilets in some of the factories.

Q. Do men and women work in the shops where the toilets are open that way? A. Yes, sir.

Q. What have you found to be the odors from them, disagreeable or offensive? A. I believe they are.

Q. How are the toilets kept, are they clean? A. I don't know, because I haven't examined them, because it is none of my business, and I believe the manufacturers wouldn't allow me to do that. There is one shop where downstairs is a barn, and they used to keep the cow and horse there, and above there is a shop and there is no ventilation at all, and of course, the shop is overcrowded with people.

Q. How many people in it? A. In the neighborhood of fifty.

Q. Men and women together? A. Men and women together, and I want to say since I have been interested in this business, I believe we have lost seven or eight members of our organization, who died of consumption, the majority of them girls.

Q. Within what time is it? A. Why, during three or four years, if I can remember; before I didn't take any thought.

Q. What else have you discovered in your investigations? A. And of course, in some of the shops, there are girls working under age.

Q. Under what age, under fourteen? A. I believe they even aren't thirteen. I was in one of the shops last week, and I found a girl, I believe she was about 12 years old. I understand she had papers, probably had false papers, her sister's or something of that kind, but I am sure and positive the girl is under age.

Q. Now, is there anything else that you discovered in your inspections which you want to call to the attention of the Commission? A. Why, of course, the shops aren't large enough for the people they employ.

Q. You mean too many people in the shop? A. Too many people in the shop.

Q. For health? A. Yes; and of course, there isn't enough ventilation in the shops, especially in those little shops. All there is, is windows, and it is dark and the majority of people have got to work by light during the day.

Q. Is there anything you want to suggest to the Commission by way of recommendation or legislation? A. I don't know exactly.

Q. Would you favor that all manufacturing establishments should be licensed by some authority? A. Yes, sir.

Q. The licenses not being granted until they have complied with the conditions regarding health and safety? A. Yes, sir.

By Commissioner DREIER:

Q. I would like to ask about the dressing rooms. Are there any dressing rooms? A. Just what I have reported for that one case. He was instructed to have a dressing room there and hasn't got it. He has got only a little bit of a pantry with a couple of nails driven in there.

Q. There are no factories with proper dressing rooms? A. Yes; the large manufacturers, but not small shops.

Q. In these shops where they use machines, is there a proper passage to the fire-escape or not? A. There is one where there isn't, and we have been fighting that firm for a couple of years. We notified the shop inspectors in Albany, and they have inspected the shop, and they came out and they say it is fair.

By Mr. ELKUS:

Q. Where did you say Mr. Pearl's place was? A. 238 Spring street. The shop inspector went up and inspected it and he says it is O. K. I want to say right here, by God, it's a shame. Go up and investigate it and common sense will show you it is not clean. There isn't a shop in Buffalo as dirty as that. There is no fire-escape at all. There is only a door and there are buildings about 15 feet away, and there is a board something like a wooden bridge.

Q. Between the two? A. Between the two.

Q. No fire-escape? A. No fire-escape.

Q. Wooden staircase? A. Yes.

Q. Wooden building? A. No, brick.

Q. Wooden floors? A. Wooden floors.

Q. How many people are working in that building? A. Of course, I have not been in that shop; it is a non-union shop; I

believe there is in the neighborhood of about twenty people working there.

By the VICE-CHAIRMAN:

Q. How tall is the building? A. I think it is four or five story high.

Q. Four or five stories? A. Yes, sir; and there is another place on Swan and Ellicott.

By Mr. ELKUS:

Q. Give the number? A. On the corner.

Q. Which corner? A. Opposite the post-office. Why, there is a door, I believe, about four feet wide and it is locked; there is no fire-escape or anything. Of course, if the door was open, a person would be liable to drop to the ground.

Q. What floor is this on? A. The third floor.

Q. How many stories high is the building? A. Three.

Q. How many people employed in it? A. I believe about 60.

Q. What business is carried on there? A. Special order house; special order tailoring trade.

Q. What kind of a building is it? A. Brick.

Q. Wooden floors? A. Wooden floors.

Q. Wooden stairway? A. Wooden stairway.

Q. No fire-escape at all? A. There is one fire-escape between the buildings.

Q. There is a bridge that runs from one building to the other? A. No, no; there is a fire-escape on one side.

Q. A metal fire-escape? A. Yes.

Q. And on the other side, you say on the third floor there is a door which opens in the wall? A. Yes, sir.

Q. If you step out of that door, you would step down three flights? A. Yes.

Q. Do you know in this fire-escape whether there is a drop ladder from the lowest balcony to the street? A. I don't know.

Q. Have you noticed fire-escapes in the city of Buffalo, whether or not they have ladders from the lowest balcony to the street? A. I don't know if there is one.

Mr. ELKUS: Anything further?

Commissioner DREIER: I want to know about hours of work.

Q. How long do they work? A. In some of the shops they work fifty-three and some of them fifty-four. A non-union shop they work fifty-four and union shops fifty-three.

By Commissioner PHILLIPS:

Q. These bulidings which you describe, are they contractors?
A. One manufacturers, and the rest contractors.

Q. In what condition is the manufacturers building? A. Of course, practically it is pretty favorable; it could be better; there is no cuspidors and not enough ventilation.

By Commissioner DREIER:

Q. Are the workers doing day-work? A. Yes, the majority.

By Commissioner PHILLIPS:

Q. Have you ever been to any of the Rochester buildings?
A. No, sir.

Q. Is there any of this contract work done in the homes?
A. Yes, sir; of course, during the busy season most of the Italian people, they can't finish out the work in the house, and, of course, they are piece-workers and take the work home.

By Commissioner DREIER:

Q. After they worked all day in the factory? A. They worked daytime in the factory, and evenings they are working home.

By Commissioner PHILLIPS:

Q. Why do they work evenings after they have worked all day?
A. They can't earn enough.

By Mr. ELKUS:

Q. What do they earn during the day? A. Why, in the coat-shops they earn in the neighborhood of five dollars to fourteen

dollars a week, and in the pants-shops they earn between four dollars and seven dollars.

Q. Now, these men that work at home, they take it home, and they live in tenement houses, I suppose? A. Not men, just women.

Q. And they work in the room where they eat and sleep? A. Yes.

Q. And they have children, I suppose, most of them? A. Yes.

Q. So these garments that are made that way come from those rooms? A. Yes, sir; non-union houses.

MARGARET LEIST, called as a witness, and being duly sworn, testified as follows:

By MR. ELKUS:

Q. What is your full name? A. Margaret Leist.

Q. What is your business or profession? A. I am the executive secretary of the Consumers' League.

Q. How long have you been executive secretary of the league? A. Since October 1st, 1910.

Q. Before you were executive secretary were you interested in working girls and working women in factories? A. Yes; I have had a number of friends who were settlement workers and I have come in contact with this phase of work through them.

Q. Are you a college graduate? A. No; I am not.

Q. As executive secretary of the league, have you made investigations and personal inspections of various factories where girls and women are employed? A. Yes, sir.

Q. About how many have you investigated in the city of Buffalo? A. Well, I should say a hundred or so. I have a list here.

Q. You have investigated about a hundred? A. I think so.

Q. Within what time? A. Within a year; within, say, fourteen months.

Q. Have you done some work with reference to inspecting the marble works and also the button factories? A. I visited those

factories just as I have others. You know the representative from a league has no authority to make inspections, and very often I realize I go into these factories through the courtesy of the management. They very often say, "Yes, you may come, but you can't ask any questions," and my visit, of course, has been a very hurried one. I have never been permitted to ask questions; it has just been a rush through.

Q. Now, will you tell the Commission the result of your investigations in Buffalo, giving such cases as you think will interest them and will show them the condition of factories here as you found them? A. I found there were scarcely any factories in which there are lunch rooms. We think that that is a very important thing. Take, for instance, the shoe polish industry. Those girls sit and eat wherever their work happens to be. If they are filling the cans with shoe polish, they sit right down where they are working; no provision is made.

Q. When they make candies and things people eat, do they sit right there and eat their lunch? A. I think that is the custom, but we are not admitted into the candy factories. I tried to obtain admission there several times.

Q. You were not permitted to get in? A. No; the only way I got in was by saying that we were very much interested in the working conditions of women and children.

Q. Go ahead, and tell us what else you found; no lunch rooms and inadequate fire-escapes? A. Yes; I don't think anyone would attempt to go down a ladder fire-escape; I would rather jump, I think they would, too.

Q. Why wouldn't you attempt to go up and down a fire-escape? A. I don't think I would know how to go at it.

Q. You mean because the ladder was straight up and down? A. Yes, sir.

Q. It is practically impossible for a woman to do it? A. Yes.

Q. I called the attention of the chief to this building right opposite here, where there is a fire-escape, a straight up and down one, but after you get down to the lowest balcony about twenty feet above the street, there is no way of getting any further. Have you noticed that condition existed in other buildings where there are fire-escapes? A. Yes, sir.

Q. How would anybody get down from that balcony to the street?

A. They called the attention of the factory inspector to several fire-escapes of that nature, and I suppose he said the law does not cover that part of it. I suppose they assume that the Department bring their ladders and bring them down.

Q. In other words, they would have to stand there until the firemen came? A. Yes, sir.

Q. Did anybody tell you the law didn't cover that case — they could be compelled to put a ladder there, or hang one there which would be used to go from the balcony to the street? A. No; I can't say they did, but there is a large building down on Court street and the fire-escapes don't come below the first floor, and I spoke to the factory inspector about it. That was the case that was reported, and when the report came back, they said the fire protection was adequate.

Q. Now, what else is there, that you discovered? A. Well, we think that core making is particularly hard on women, and laundry work, operating the heavy body machines.

Q. How about the marble works? Do the women do heavy work there? A. Yes.

Q. What do they do? A. Polish the marble.

Q. Why is polishing marble so hard on women? A. It requires great muscular strength and the forewoman told me that an American-born girl is not able to do that work, and therefore they tried to procure foreigners who are able to do it, but she called my attention to one woman who was working there for twenty years, and she looked healthy.

Q. Looked all right? A. Yes; she did.

Q. How much do those women get in marble working? A. Four, five, six, seven dollars.

Q. Now, in the button shops, are you familiar with the women working there and the girls working there? A. I am not familiar with it. As I say, my visit to the button factory was a very hasty one.

Q. How about the dust in those places? A. I noticed one machine particularly, a machine that a girl was working on. I asked how many buttons she could do a day and the floorwoman turned to her and said, "How many gross do you do a day?" I

asked the price a gross and I think it is three and a half cents a gross. Before the girl was able to reply she had to clear her nostrils.

Q. Why did she have to do that? A I suppose it was the dust.

Q. The dust in her throat from the buttons? A. Yes, but these were vegetable ivory buttons; this is not pearl buttons.

Q. Was there any means of carrying off this dust? A. No; she had her head protected, her hair; she wore a covering over her head.

Q. But nothing over her mouth or nose? A. No.

Q. How about rag picking shops, girls and women work in them? A. Yes. Some of them are very well regulated, but the work is very unattractive for a woman.

Q. Now, is there anything else that you would like to tell the Commission about, or have you anything to suggest or recommend to the Commission by way of legislation? A. I think that every woman ought to be provided with a place to eat her lunch.

Q. Anything else? A. I think that is sufficient.

Mr. ELKUS: Anything else?

The WITNESS: Hot and cold water, I think, should be provided.

Q. You mean she should be given an opportunity to wash her hands, with lunch? A. Yes.

By Commissioner DREIER:

Q. You heard Mrs. Gardiner's program? Do you agree with Mrs. Gardiner? A. Yes; very heartily; I think she covered everything.

Q. I think it was testified before the Commission by the physician connected with the State Department, that it would be wise to prohibit children working in the button industry, because of this dust. In the factory you saw, was there only one girl whose face or mouth was filled with dust? A. No; there were several, But I was rushed through. We were not permitted to ask questions. That girl I don't believe was more than eighteen years of age.

Q. Do you think it a wise thing to prohibit children working in the button industry? A. Yes, I do.

Q. And other industries where there is danger from dust and fumes? A. Yes.

FRANCIS FRONCZAK, called as a witness, being duly sworn,
was examined and testified as follows:

By Mr. ELKUS:

Q. What is your full name? A. Francis E. Fronczak.

Q. Doctor, you are the Health Commissioner of the city of Buffalo? A. Yes sir.

Q. How long have you been Health Commissioner? A. Been Health Commissioner since March 26, 1910.

Q. And you are a practicing physician? A. Not now.

Q. You are a regular medical physician? A. I am.

Q. Doctor, have you a Board of Health in the city of Buffalo?
A. We have

Q. How many members has it? A. Three members.

Q. Who appoints the Board of Health? A. The Board of Health consists of the Mayor of the city, elected by the people, the Commissioner of Public Works, elected by the people and the Commissioner of Health, appointed by the Mayor.

Q. How long is your term of office? A. My term of office is five years, beginning January first next.

Q. You have just been reappointed? A. Yes, sir.

Q. As Health Commissioner, what are your duties and what are your powers and privileges? A. That is a pretty hard question.

Q. Tell us briefly, because we want to know how much power you have and whether you exercise it or not. A. On the face of it, we think we can control almost anything, but legally we find out there are always obstacles. The Health Department is supposed to look after vital statistics, including births and deaths. We are supposed to look after the food industries, also food stuffs and milk, inspection of commission houses. We look after the tenements, under the tenement house law; look after sanitary

affairs as far as cleanliness is concerned and general sanitary conditions; look after plumbing and draining of the city. We have a child hygiene bureau, which is supposed to look after children from the time they are born, up to the age of fourteen or sixteen. We also have a laboratory of bacteriology, where we examine all sputum sent to us for tuberculosis. We test and examine brains of dogs for rabies; look at any sample sent us, and examine the water daily.

Q. Doctor, let me interrupt you a moment. What jurisdiction have you over factories, and men, women, and children who work in factories? A. Really, the State Factory Law takes care of that.

Q. Haven't you jurisdiction over the sanitary conditions in factories? A. We think we have, legally we have.

Q. Do you exercise it? A. Wherever we can, we do.

Q. Is there not some duplication of authority between your Department and the State Labor Department, about sanitary conveniences? A. A good deal; there is too much duplication.

Q. What duplication is there? A. Well, especially in regard to food industries. There are really three parties looking after it, the Federal, the State authority and the local authority.

Q. You heard testimony this morning about the Dold Packing Factory. Have you any authority over that? A. We have some.

Q. Those conditions, I think you will admit, ought to be remedied. A. They certainly ought to be remedied. They are being remedied as fast as they can be, but I believe some of these things cannot be corrected.

Q. They certainly can correct the dirt and slime and water on the floor. A. They can't all the time, because they are using water steadily, day and night.

Q. It needn't be dirty water? A. It needn't be dirty water

Q. You have authority over that? A. Yes, sir; the conditions have been improved within the last two years, well, very much indeed.

Q. And they can still be improved? A. They still can be improved, yes, sir.

Q. The conditions described in these candy factories are under your charge, is it? A. Yes.

Q. Those conditions ought to be improved? A. They have been improved in the last two years considerably, and should be further improved. We have three food and drug inspectors, who are covering these industries steadily as fast as three men can inspect all food industries in the city.

Q. How many inspectors have you? A. For food and drugs, three.

Q. Manufactories, any at all? A. None.

Q. You make no regular inspection of factories? A. Where there is a complaint, then we send a sanitary inspector and make him correct it.

Q. You have no sanitary inspectors who regularly inspect factories? A. No, that comes under the factory law.

Q. But you still have authority if anybody complains about toilets, for instance, in a factory, to order their being cleaned? A. Yes, sir.

Q. You don't take that authority on account of the factory law? A. On account of the factory law.

Q. There is a duplication of authority there? A. Yes.

Q. What have you to say about the duplication of authority which exists? A. There should be a centralization of authority. Either the Factory Department should have it exclusively, or we should have it; we believe we should have it.

Q. Why? A. Because much red tape can be eliminated that way. Our local men could go after it immediately, without conferring with Albany, and we are more familiar with the conditions.

Q. Do you believe you should have sole authority over all factories for all purposes? A. Yes, sir.

Q. That is to say, the authority to see that the factory law was carried out, should be vested in the Health Department? A. Yes, everything relating to sanitation and prevention of accidents.

Q. And fire? A. The Fire Department looks after that.

Q. You heard how they looked after it this morning, A. I didn't have the pleasure of hearing it.

Q. Now, with reference to accidents, will you give us some illustrations? I think you can demonstrate how the present system works when your Department really has nothing to say about

it. A. If any man dies after an accident, then this thing is referred to the coroner in the other counties of the State, and the coroner decided whether the accident was due to criminal neglect. If he thinks it is, it is his duty to report it to the district attorney, for prosecution, but our Department doesn't do it at all.

Q. What do you do about it? A. When a person dies after an accident, we simply notify the medical examiner for investigation.

Q. What are the two principal cases you have in mind? A. Well, there was a person who died after cleaning out a beer vat, cleaning it with wood alcohol. One of these men a short time afterwards became blind and another one died. The Department had no control of it; had to refer the whole matter to the medical examiner.

Q. What caused their injury or death, spontaneous combustion? A. No; fumes from wood alcohol.

Q. And you favor in a case like that, for example, that your Department should have sole charge of it? A. I believe they had better.

Q. Do you favor the licensing of manufacturing establishments? A. Every one of them.

Q. By either some State board or local board? A. I believe the local board ought to do that.

Q. Ought the licensing be renewed from time to time after inspection? A. Very, yes.

Q. How about employees in factories; should some of them be examined from time to time? A. In certain industries; especially food stuffs they should be.

Q. What should be done, for instance, about bakers? A. No man suffering from venereal diseases, or tuberculosis or any skin disease should be allowed to work in a bakery or meat industry.

Q. Did you ever inspect the Dold's packing house yourself? A. Personally?

Q. Yes. A. No, sir.

Q. Have any of your inspectors ever been there? A. Time and time again.

Q. Have they reported it as entirely perfect? A. As far as possible, yes.

Q. Have the State factory inspectors ever called your attention to the condition of Dold's factory? A. Not to my knowledge.

Q. Or any of these candy factories? A. Not to my knowledge.

Q. Of course, if they did, you would have seen that the conditions were remedied? A. Certainly; if the complaint is made, it is always taken care of the same day or following day. Now, in reference to Dold's, my idea is the United States Government has authority.

Q. There is some duplication of authority? A. Well, it is triplication in this case.

Q. How about tuberculosis? Have you made any study of that among people who work in factories? A. Yes.

Q. Will you tell the Commission whether that is increasing or decreasing? A. We believe we have in the city of Buffalo, about 4,500 cases, all told. We have over 3,000 complete reports according to the State law. Now these cases are divided into many and various industries, and among the so-called dust industries, there are over eight hundred tuberculosis cases reported, in the city of Buffalo.

Q. That is where men and women work in some kind of occupation or trade where dust is produced? A. Yes.

Q. Can you say whether or not the working in dust causes this tuberculosis? A. It is one of the pre-disposing causes; the tuberculosis germ is necessary in order to produce tuberculosis.

Q. What should be done? A. Something should be done whereby the dust in all industries of that kind be removed.

Q. That is practical? A. Yes; I think it is.

Q. You can put hoods on? A. Hoods and exhausts.

Q. And they can be made to cover their mouths and faces and noses? A. Yes; I think it's practical.

Q. Do you think the occupation in many of the cases causes consumption? A. No doubt of it; one of the pre-disposing causes.

Q. What would you suggest as to the employment of women in factories? A. It all depends upon the factory. In any factory which has considerable machinery and shafting, there is danger of the women's clothing being caught. The women should not be allowed to work in such a factory unless there is protection

for them, and I don't believe that women should work in any industry where they have to do heavy carrying, like marble factories. I understand that in some of the metal sheet factories and even iron industries they are employed.

Q. Now, you don't believe a woman should be allowed to work in a factory where she has to carry heavy weights? A. I certainly do not.

Q. Why not? A. Why, her physical condition would prevent it, and she is liable to suffer from various diseases, due to carrying heavy weights.

Q. What would you say about women being allowed to work who are pregnant, and just after childbirth? A. I don't believe a woman ought to be allowed to work when she is pregnant, or just been delivered from a child, not for several weeks.

Q. How can you remedy that? A. That would be remedied I believe if we had female superintendents or female floorwomen, when she notices the woman is pregnant, she should see that before delivery she should be stopped from working, and not allowed to work again for several weeks after that.

Q. That ought to be done by law? A. That ought to be done by law, yes.

Q. Doctor, are there many men or women working seven days in the week in Buffalo? A. Some; I don't believe there are many.

Q. Do you believe that should be prohibited? A. No man should be allowed to work seven days a week.

Q. Why not? A. The physical system demands a rest at least twenty-four hours every week.

Q. How can that be prevented? A. I believe strict enforcement of the law, which even now prohibits it.

Q. On the question of factory inspection, how often do you believe a factory should be inspected by some authority? A. Some factories ought to be inspected every day to be in shape,

Q. You mean the only way you could get them in shape is by having a daily inspection? A. I think so.

Q. How many factories are there like that in Buffalo? A. Considerable.

Q. Considerable? A. I think there are.

Q. You mean to tell the Commission that there are a number of factories in such bad shape in the city of Buffalo, that the only way to get them in decent shape is to have daily inspection?
A. I don't mean that; but to keep them in good shape they ought to be looked after every day.

Q. You mean as to sanitary conditions? A. Sanitary conditions; yes, sir.

Q. And as to filth and dirt? A. Yes, sir; our three men cannot cover the entire city that way.

Q. With three men it is impossible to do it? A. It is impossible. We figure out there are about eighteen thousand industries and stores, groceries, milk houses, saloons, butchers, etc. These three men can't do it. In fact, if they work steadily, it would be impossible to make one visit a year in some of those places.

Q. Are you in favor of the physical examination of employees who work in manufactories where food stuffs are manufactured?
A. I certainly am in favor of it and they ought to be.

Q. Why, Doctor? A. Why, many of them are suffering from various diseases.

Q. Such as? A. Well, say, syphilis, gonorrhoea, tuberculosis and various skin and scalp diseases. These men should be absolutely prohibited from working, and the only way to prohibit that is to have them examined physically from time to time.

Q. By inspectors of your Department? A. Either our Department or some Department, but one single Department ought to be designated to do it.

Q. It has been suggested by some of the experts who appeared before the Commission, that the State should have a Department of Inspection of all its manufactories, this Department simply to have men who are trained to discover facts, and when they discover violations of the law or conditions that ought to be remedied, they are to report those facts to the different Departments having charge. Do you believe that such a system would be successful? A. I am only very much afraid there would be duplication again, because, for instance, the Factory Department might depend on this particular Department to look after it. The State Department might look for a complaint from this Department, but if the Factory and various Departments

would simply be sure they could depend on this particular one, I think it a most excellent idea.

Q. Of course, it would be mandatory. A. I think it a very good thing.

Q. That would avoid all this duplication? A. Certainly would.

Q. You believe that in reference to your own city, some local department ought to have charge of the violations of law? A. Yes, sir.

Q. And sole authority to inspect? A. Yes, sir.

Q. You have no means of knowing at all now where there is a violation of law or a health ordinance, unless somebody reports it to you, or you discover it by accident? A. By accident or somebody reports, because we have so few inspectors that they cannot make complete investigations and report complaints to us.

Q. Have you any means of finding out where a factory is, unless your inspectors discover it? A. No means at all.

Q. A factory might be in existence for years without you knowing it? A. That's true.

Q. Would you say to the Commission that tuberculosis would decrease if factories were properly inspected? A. There is no reason why tuberculosis cannot be eradicated completely by proper control.

Q. Do you mean to say these four thousand cases now existing in the city of Buffalo could be eradicated altogether? A. I believe in due time, if we have proper control, proper supervision and proper means for fighting the disease.

Q. A great part of that disease comes from improper factory conditions? A. No doubt about that.

Q. So proper factory inspection, with proper laws, will practically eradicate what they call the White Plague? A. Yes, sir; among the working men.

Q. Now, Doctor, is there anything you would like to speak about or recommend to the Commission? A. Well, I only hope that if anything is done, that the local office will be here in the city, so we may be able without considerable red tape, to enforce the law. We have enough laws, without the enforcement of them. Among other things, I desire to call the attention of this Commission to

the defiance of the law which says that women and girls in dry goods stores and other department stores should have chairs provided for them to sit and rest. We have found time and again the chairs are there, but if the girl sits for a minute, the floor-walker will ask here if there is nothing else to do but sit around. I also believe that every girl should be allowed to have at least one full hour for noon-day meal, should not eat in the workshop, especially the workshop where there is considerable dust, dirt and smell and fumes.

Q. And you don't believe these girls should be permitted to take half an hour for lunch and work ten hours a day besides?
A. I do not believe any person can take half an hour for lunch and work properly after that. A person in due time will deteriorate physically.

Q. Have you considered the ventilation problem and the light problem? A. Somewhat.

Q. Should there be a standard of ventilation created by the State and a standard of light? A. There certainly should be a law provided that at no time should there be more than ten parts of carbon dioxide to ten parts of air in any place. There should be a standard of light whereby the person would not suffer on account of eye strain or become blind by too much light.

Q. All those things can be done by legislation? A. Certainly can be.

Q. Anything else, Doctor, that you would like to say? A. That is all, I think.

By Commissioner DREIER:

Q. It has been suggested that as a health measure, we might be able to limit the hours of labor in dangerous occupations. What do you think of that? A. In some occupations it must be, for instance, those working in caissons, compressed air; the people who work in various fumes; those who cleanse various boilers. There are a good many of these industries where the number of hours should be limited.

Q. Can you give us an idea of how short they should be? A. It all depends on the business or the occupation. For instance, a man who works in the hold of a boat or in a boiler, can't work eight

hours steady. The man who works under compressed air should not be allowed to work eight hours at a time. Any person who works in a factory where there is considerable dust and fumes should not be allowed to work eight hours at a stretch.

Q. It has been suggested that in the case of children, eight hours a day was too long and that it should be cut. One of the physicians in New York stated that he thought four hours a day was sufficient.

A. Well, all depends on what they call a child.

Q. Under sixteen. A. It all depends on the occupation; for instance, a girl working in a dry goods store, if she works eight hours, is more tired out physically and mentally than a girl who works, for instance, in an office, with windows wide open where she is not being rushed and there is more fresh air and more natural light. A boy who is a messenger boy can certainly work a longer stretch of time without being physically embarrassed than a boy who works in a factory, where there is a lot of dust and gas and artificial light.

Q. So you really ought to have an investigation of each industry?

A. There should be an investigation of each industry; certain industries can be joined together; children working in those industries should only be allowed to work so many hours, but that couldn't be made a general law; couldn't apply at all.

WILLIAM H. HEATH, called as a witness, being duly sworn,
was examined, and testified as follows:

By Mr. ELKUS:

Q. What is your full name? A. William H. Heath.

Q. You are a physician? A. Yes, sir.

Q. Are you connected with any of the city departments? A. Department of Health.

Q. What is your connection with the Health Department? A. I have got the Bureau of Food and Drugs.

Q. How long have you been in charge of that bureau? A. Fifteen years.

Q. What is the function of that bureau? A. Inspecting food plants for sanitation, the character of the materials that are used, and to correct violations of the ordinances.

Q. Tell me how you carry out the functions of the department. What do you do? A. Those food industries which are inspected regularly are inspected under the score card system. Restaurants, confectioneries, bakeries are inspected continuously and the others four times a year, thoroughly. We have certain requirements from the city ordinances, which we endeavor to enforce with regard to light, ventilation, cleanliness, disposition of the waste and also in regard to the other features of the ordinance.

Q. Doctor, you heard the testimony this morning, didn't you, about the inspection of candy shops? A. I did.

Q. What would you say about that? A. They don't agree quite with my experience and it doesn't quite agree with the reports I have from the inspectors.

Q. Your inspectors don't report the facts as our inspectors found them? A. Our inspectors report the facts as they find them.

Q. Their facts don't agree with ours? A. No, sir.

Q. They have reported to you that these shops were in first-class condition? A. No, sir.

Q. What do they report? A. Sometimes they report them as being unclean in certain places and sometimes they are not.

Q. How often have your inspectors reported on these three shops which our inspectors reported as being filthy and in bad condition? A. In the last inspection made of the National Candy Company, the deficiency reports were for lack of painting and varnishing in certain places, which is open to question on account of the heat used there. There was nothing said about the filthy floors. The gentleman who inspects the candy and confectionery factories here is a very careful, judicious man.

Q. Of course, the inspectors with us you recognize as intelligent and able? A. I won't dispute the intelligence of either of them; they are neither of them under criticism.

Q. Doctor, you are the author of the ordinance licensing bakeries in this city? A. Yes, sir; under the direction of the commissioner.

Q. And under that ordinance all bakeries are licensed? A. Yes, sir.

Q. How often is that license renewed? A. Once a year.

Q. Are they inspected before the license is made and renewed. A. Invariably.

Q. Do you believe that all manufacturing establishments should be licensed? A. I believe certain ones for certain things and others for other things.

Q. But every one should be licensed in some form or another? A. Yes.

Q. So that some department might keep them under control? A. Yes.

Q. Have you found the licensing system of the bakeries to work satisfactorily? A. Splendidly.

Q. Has it been any hardship on the bakers themselves? A. No.

Q. Is the idea of licensing novel with you? Or did you derive it from some other city? A. It is very old.

Q. All European countries have it? A. Yes, sir.

Q. And they have medical inspection in all European countries? A. Likewise.

Q. You don't have it here? A. No.

Q. Do you believe in it? A. I do.

Q. Do you think it ought to be made compulsory? A. I do.

Q. In all places where food products are made? A. Absolutely.

Q. Do you think that disease could be lessened materially if we had such inspection? A. What kind of disease.

Q. Tuberculosis? A. I believe tuberculosis can be best lessened in factory industries by examination of the men themselves, and by having good conditions of light and ventilation where they work.

Q. What is your ordinance as to licensing bakeries? Will you please state briefly the substance of it? A. It requires that the place shall be inspected before a permit is issued; that after the inspection, if the department approves it, a permit shall be issued and the permit will be taken to the mayor, who will issue a license, for which there is a fee charged; the fee is regulated by the number of employees. The ordinance then has certain sanitary requirements, as regards to there being no basement, dry, tight stairs and enough ventilation. No sleeping room or water closet shall open directly into the bakery shop.

Q. Have the conditions of bakeries improved very much since you have had this ordinance? A. Very, very much; there are some operations of the ordinance which could be improved upon.

Q. Have you heard the recommendations which your chief, the health commissioner, made to the Commission? A. Not all of them.

Q. Those you heard, do you join in? A. Emphatically; the principal defect about the ordinances is that they are not specific.

Q. Your ordinance? A. Our ordinance; all ordinances; I have read almost all of them in this country. They permit the adaptation of the ordinance to conditions, whereas conditions should be made to comply with ordinances.

By the VICE-CHAIRMAN:

Q. Is there any ordinance against burning soft coal in this city, Doctor? A. I believe there is.

By Mr. ELKUS:

Q. Is it enforced? A. I do not know.

Q. Is there anything further, Doctor, that you would like to suggest or recommend to the Commission? A. There is so much that I couldn't go over it. In the first place, I think, in regard to the places where the food products are manufactured, there should be specific requirements as regards cubic air space proportioned to the number of employees, so as to insure a proper amount of ventilation. It is not uncommon to go into a factory where one man runs it—a bakery—and he has a place so small that he hasn't got enough air space for proper ventilation, and then the ordinance should differentiate what are known as home bakeries. There are a large number of people who make bread and cake in their own house back of stores, in connection with stores and sell them. It is impossible to make those conditions comply with the ordinance, and it is a hardship to put those out of business. There should be some qualifying conditions in all these industries, so as to admit them all and make these people have certain requirements; for instance, I can illustrate: a bakery is not allowed to have a closet, yet a home bakery can make bread and cake in the house where there is a water closet.

Q. What do you call a home bakery? A. Where women very frequently bake bread and cake in connection with some other

industry and sell it in a small way, sell from two to three dozen loaves of bread a day.

Q. Do they bake often in a cellar? A. Never; we don't allow that.

By Commissioner DREIER:

Q. Bake it in a basement at home, though? A. Yes, sir.

By Mr. ELKUS:

Q. And sell it? A. And sell it, and take orders for biscuits and cakes.

Commissioner DREIER: I would like to ask about limiting the hours of labor for bakers. The report has been that in New York many bakers work from 14 to 17 hours a day. A. That is true in some instances, but not in this city. The bakers here work in two shifts, day and night shift. Some bakers work practically in both, where they work at home, and have certain orders to get out on certain days in the week, in the Jewish trade particularly. But those hours are regulated very largely by bakers' unions.

Q. I mean the conditions in Buffalo. A. I don't think there is much of those long hours among the bakers, although they work very long; they go to work at six o'clock in the evening and work until morning, ten hour stands.

DE LANCEY ROCHESTER, called as a witness and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. What is your name and address? A. De Lancey Rochester, 469 Franklin street, Buffalo.

Q. Are you a practising physician in this city? A. Yes.

Q. How long have you been practising? A. I graduated in '84.

Q. Doctor, have you made a study of the effect of dust arising from metallic substances, wood substances and vegetable sub-

stances upon those who work in that dust? A. Some years ago I investigated pretty thoroughly, both in places here and by correspondence with other men, the effects of the various dusts upon the respiratory apparatus, and so upon the general health of the people. I have not done any of that within the last seven years, so that the conclusion that I derived as to the effects of dust remain just the same, but I don't know just what the conditions are now.

Q. We have evidence as to the conditions. What we would like to know is as to the effect. The effect is the same; years don't change that. A. Precisely.

Q. Will you tell us what you did in your discoveries and what the effect of your discoveries were? A. Briefly, of course my investigations were not as complete as those made by predecessors, because I could not follow up the cases with autopsies, as they did, so we have to put the two things together, in that respect. I followed up what my father had previously done before me, particularly in studying the grain shovelers here, and then I went through several of the woodworking places in town, where there was a good deal of dust from saws in the mills. Unfortunately I have kept no notes, so I cannot tell you exactly what I did at that time; simply give you general conclusions. The general conclusions were these: That there was a considerable amount of dust there and I was led to this inquiry particularly by two cases that came under my observation of men who inhaled wood dust. Now, wood dust has been generally considered as the least harmful of the various dusts. These two men came to me about, oh, I guess it was seven or eight years ago, and they both, to put it briefly, were suffering at that time from pulmonary tuberculosis. Inquiring into their past history and lives, I found that one was working in one mill and one in another, where they were exposed to a very large amount of the wood dust from the saws. They had virtually the ordinary evidences of pulmonary tuberculosis at the time, but from their history it didn't begin until after they had been working in these mills, so I concluded they had a dust disease in the lungs, followed by infection with the pulmonary tuberculosis bacillus, — which is the common history in these cases.

Q. Doctor, could you get us those notes at some future time?

A. I don't believe I could; I don't believe they have been preserved. I read a paper and threw it aside; I didn't publish it at all, because this thing had been so frequently gone into. There is so much of it in the medical literature that one or two instances don't count. I simply brought these things up because they were woodworkers, and looking up the literature, and I found there was a good deal of the wood dust, so I have not got the notes at all.

Q. Doctor, have you made a special study of tuberculosis among people who work in factories? A. Well, I can't say that, because, of course, nobody makes a special study of that alone.

Q. You are familiar with the general subject? A. Yes, indeed, because I have done a great deal of work in tuberculosis.

Q. What have you to say to the Commission? First, tell us whether or not you have found tuberculosis prevalent among men and women who work in factories? A. It is most prevalent — can I give you a few things here?

Q. Go right on in your own way. We appreciate the fact that you have come here voluntarily. We are in debt to you for it. A. There are four different kinds of dust we recognize, the mineral, the metallic, the vegetable and animal dust, which can produce these diseases. Among the metallic dust we have the knife and tool grinders, polishers of metals, the engravers, gilders, type-makers, glass polishers, and so forth, and among the mineral dusts we have mill-stone makers, the masons, the potters, the porcelain and china and cement makers, stonecutters, and so forth, and among the vegetable dusts we have the coal miners, the sweeps, the charcoal burners, the millers, the bakers, — we were just speaking of the bakers — and, particularly here in Buffalo, the grain shovelers, and we also have the ropemakers and the jute spinners, the sawers of wood, and other workers in wood, the tobacco workers; all are vegetable dust. Then we have the animal dust, the workers in hair, wool, carpetmakers, pressers of cloth, sorters of wool, and that sort of work, all of which are animal dust.

We have got several factors in our economy to protect us against dust. In the first place, the individual breathes through the nose, and there is a lot of dust collected in the nose. Ordi-

narily a patient simply breathing dust gets a certain amount of dust into their lungs, and it is carried out by normal processes, but if they keep on breathing, whatever the dust is, after a while the dust is not swept out; then it is taken up and carried into various parts of the body, into the lungs, into the glands connected with the lungs, into the lymph circulation, and then, eventually, into the blood circulation, so it can be deposited in the spleen and other parts of the body, but the most marked effects are in the lungs. There it interferes with the proper inhalation of oxygen and exhalation of carbonic dioxide, and further, through inhalation, increases the growth of fibrous tissue in the lung, and fibrous tissue takes the place of normal lung tissue, and lung tissue loses its elasticity and becomes very much diseased, so we have chronic bronchitis, and then we get the bacillus, and then we have the tuberculosis. Those are the ordinary steps through which the disease acts in these cases.

Q. You find it all attributable to this dust? A. Yes.

Q. And nothing else? A. That is what I was going to say. Of course, this affects the lungs, but then if the lung is interfered with, which is necessarily the greatest intaker of food in the form of oxygen that we have, why the processes of the body are generally interfered with, and the nutrition and health of the individual is very much impaired.

Q. So that the effect is bad upon his children if he or she has any? A. When you get into the question of heredity that is another thing.

Q. Now, Doctor, you have described how tuberculosis comes to exist in these workers in dust establishments. Will you tell us whether or not this can be prevented? A. I think it can be prevented to a very great degree, and the recommendations that I would make to prevent this would be in the first place to have a sufficient air space for each individual worker. The men who have made ventilation their study state that each individual should have as a minimum, the very minimum, three hundred cubic centimeters of air space, provided that the air in that space is changed every hour without draught. That is the minimum. Of course, they really require a great deal more than that, ordinarily, so the first thing that I would recommend is that there

should be sufficient air space for each individual worker. The next thing is the obliteration, so far as possible, of dust from the place, and that can be accomplished to a great extent in many of these factories, any way, by the installation of properly made hoods, which carry off the dust. In those which cannot be protected in that way, inhalers over the nose and the mouth of the worker can be supplied, which will filter out the dust and let the air through without the dust.

Q. In other words, Doctor, by the use of precautions which are well known, a great percentage of tuberculosis may be prevented?

A. Absolutely.

Q. What do you say as to prohibiting young girls or women from working in these dust-producing industries? A. Well, I don't think there would be any worse effect produced upon women than upon men.

Q. How about young people? A. Of course, when they are young we don't want them working at all, if we can help it, but, so far as the resistance is concerned, the worker of 18 to 35 years of age, if they are otherwise in good health, it is better than that of an old person.

Q. You say 18 to 35. That leads me to the question that under 18 would prohibit their working in these industries anyhow? A. I should.

Q. Absolutely? A. Absolutely.

Q. And you would favor legislation to that end? A. By all means.

Q. Would you favor legislation compelling the use of these protectors which you have referred to in all factories? A. I should certainly recommend that should be done.

Q. As a great health measure and preventative of disease? A. Yes, sir.

Q. Is it a fact that lead dust acts more upon women than it does upon men? A. That is pretty hard to answer, because lead produces disease in various ways. It is not only the dust, but the handling of lead, so we have a regular disease, known as the lead disease. I don't think it is proved at all that lead has more effect upon women than it has upon men. I know that that statement has been made. I don't think it is proved at all. Lead

produces an entirely different condition; produces a very hard change in the arteries, which other dust does not.

Q. You have told us very fully and very interestingly with reference to dust. Have you made any investigation as to hours of labor of employees, lunch hours, and such matters as that? If so, will you tell us what investigation you made, and what recommendations you have to suggest? A. The investigations can't properly be called investigations; it is simply conversing with my patients, and finding out what their hours are.

Q. You have a great many patients who work in factories? A. I have had at various times. Of course, I am connected with two hospitals.

Q. What hospitals are those? A. Buffalo General Hospital and County Hospital.

Q. You are visiting physician at each of these, and you come in contact there with a great many who work in factories? A. Yes.

Q. That has been one of the means of study you have? A. Yes, I feel this way about it, that a great many of these people have digestive disturbances, particularly the women, and when inquiring into it, they don't have sufficient time to digest their food at noon. They go to work, for example, at seven o'clock in the morning, and they work up to a certain time, and then they are allowed from 20 minutes to half an hour. That is the usual statement I have had. They are allowed 20 minutes to half an hour for their luncheon, and some of them keep right at work through that time, and eat their luncheon while at work, — don't stop at all; because they say they can make more money at that, and that very much interferes with their health, very greatly.

Q. What do you recommend, — that one hour should be allowed for luncheon? A. I feel very strongly that an hour should be allowed for the individual at noon. Now, that hour should not be all spent, of course, in eating, but it is very important that there should be sufficient time for the patient to masticate the food thoroughly, and not only that, but to rest for a certain time after eating before they undertake any work.

Q. Now, Doctor, are there any further subjects upon which you would like to speak before the Commission, or any legislation

that you would like to recommend? A. There is one other subject I would like to speak of, and this has been called to my attention in a number of cases. That is the cramped positions which certain workers have to take during their work. In certain work people have to stay in a cramped position for a long time, and it strikes me that under these circumstances, where a cramped position is necessary in their work, that there should be more shifts of workers than there are at present.

Q. That should be made compulsory by law? A. I think so. That is one thing I think should be made compulsory by law, that more shifts be had in this work where cramped positions are required.

Q. It was testified here this morning that in one industry a woman had to throw her whole weight, I think, three thousand times a day, on one side of her body, at intervals of a second or so, to do some kind of work. Do you think that ought to be changed, and she ought to be shifted to some other kind of work?

A. Not only ought she be shifted to some other kind of work, but some one else ought to do that work. There ought to be sufficient shifts of work to accomplish that.

Q. What else would you like to suggest? A. There is one other thing I would like to suggest, and that is there should be a compulsory examination of individuals who are working in these dust-producing places to see whether they have tuberculosis or not, for one tubercular individual can infect a factory very thoroughly. That is the other recommendation that I would make, a compulsory examination of individuals who work in these factories as to whether they have or have not tuberculosis.

Q. At stated intervals? A. At stated intervals.

Q. Do you believe in the establishment of the medical bureau or board as part of the Health Department of the City or Labor Department of the State? A. I certainly do.

Q. With an advisory board of physicians? A. By all means.

By Commissioner DREIER:

Q. Would make this lunch period of one hour compulsory for all trades? We know that the workers prefer, in many instances, half an hour, because they come out half an hour earlier in the evening. A. I should make the lunch hour one hour.

Q. That would mean eleven hours for the women to be in the factory? A. They ought to go out at their lunch hour, so that they could have fresh air. They ought not to eat their lunch in the factory, or at least it ought to be in another part of the establishment.

Q. A lunch room? A. They should have a lunch room or go out to their lunch. They should not have lunch in the work room.

Q. Do you think eleven hours away from their homes is desirable? A. I don't think eleven hours is any worse than ten hours.

Q. Not any worse than ten hours? A. Not any worse than ten hours; I think that is enough time for a woman to be away from her home, if she has a home where she has work to do.

Q. Would you suggest any shortening of the hours of women's labor? A. I am firmly in favor of the Eight Hour Labor Law myself, and I think it ought to be enforced very firmly. I think the Eight Hour Law is proper and ought to be compulsory.

Q. I think it was the Commissioner of Labor who testified before our Commission that it was almost impossible to enforce the Ten-Hour Law for women, because there was no way, really, of knowing whether they had worked ten hours, or sixty hours a week, except the inspector stayed on the job all the time. Can you give us any suggestions as to how we could get the enforcement of that law? A. I don't understand.

Q. The Commissioner told us that it was practically impossible to get the enforcement of the sixty-hour-a-week law for women. A. Why?

Q. There was no way of finding out how long they had worked, unless the inspectors were on the job all day. A. Why does that apply to women more than men?

Q. We have no limitation of hours for men. We have a limitation of hours for women to sixty hours a week, but it can't be enforced, the inspector told us. Could you give us any idea how we could enforce it? A. I had not thought of that at all.

MR. ELKUS: We are very much obliged to you, Doctor, indeed.

ANSLEY WILCOX, called as a witness, being duly sworn, testified as follows:

By Mr. ELKUS:

Q. Will you state the society of which you are president and its objects? A. I am president of the Charity Organization of the city of Buffalo, of which the objects are, briefly stated, to systematize and organize the charitable work of the city, in the first place, and in the second place to remove the causes of pauperism and to diminish the amount of pauperism in the community, to improve the social and physical condition of the poor, to prevent imposture and improper pretenses of need, and to see that the really needy get aid from those who are able to help them.

Q. Of course, you, Mr. Wilcox, both individually and as president, are very much interested in an investigation of this kind?

A. Very greatly so.

Q. And believe it ought to be conducted and carried on? A. Certainly. I hope the investigation will enlighten us and the Legislature and lead to good things, and I should be glad to co-operate in any possible way.

Q. You have found, in your own work, that there is great need of remedial legislation? A. Very great. Our secretary, who has very much more knowledge than I have of the direct work of the society, was expected to be here, but was called to Philadelphia and was consequently absent. Mrs. Fox, the assistant secretary, was here, and will be here later. She can give you some statistics. She has immediate charge of the statistical records of the society. She is impressed, and I am impressed, with the very great need of improving the conditions of the working people in their factory lives, so far as it can be done, without putting too heavy a burden on industries.

OTTO J. EICHEL, called as a witness and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. You are a physician? A. Yes.

Q. Practising in this city? A. Not for the last two years.

Q. What department of the city are you connected with?
A. Department of Health.

Q. How long have you been in that department and in what capacity? A. About two and a half years as tuberculosis inspector and chief of the division of tuberculosis.

Q. What have been your investigations as to tuberculosis conditions and what have you discovered? A. The work that I have been doing for the department has covered chiefly the registration and gathering of statistics regarding causes of tuberculosis in the city, and the supervision of these patients in their homes, also a close co-operation with other agencies, and I do tuberculosis work.

Q. How many cases of tuberculosis are there now in the city of Buffalo? A. There are three thousand registered cases that we know of, and probably between four and five thousand, including those that we do not know of.

Q. How many of these that you know of are workers in factories? A. About 814 out of three thousand.

Q. And of these 814 can you tell how many were caused by the occupations? A. In presenting these figures I want to emphasize the fact that all the other factors that are concerned in making deduction from statistics should not be overlooked. For instance in speaking of a person having tuberculosis, the danger of infection in the home should not be overlooked. We have, for instance, among those three thousand cases an enormous number of housewives who are living with husbands and the majority of whom are factory workers. Classifying the 814 factory workers as to the occupations, with the headings of "dusty trades," we have among these groups metallic dust, mineral dust, vegetable and fibre dust, animal and mixed fibre dusts, and gases and organic dusts. Under the classification of occupations relating to factories and factory work, the exact nature of the work we don't ask. For instance, we have a report of sixteen factory operators; the exact nature of their work we don't know. Under the metallic dust we have grinders, polishers, brass workers, tool makers and hammersmiths, jewelers, engravers, printers and others working in the printing rooms, machinists, bolt and core makers and tin-smiths. There are 120 cases of tuberculosis out of three thousand which will come under that group.

Under mineral dust we have lithographers, quarrymen, stone-cutters and grinders of marble, marble-workers, glass-blowers, glass manufacturers, optical factory workers, potters, and in that group eighteen cases out of three thousand.

Under vegetable and fibre dust, we have the occupations of weavers, boxmakers, coopers, cigarmakers and tobacco strippers, cabinet workers, paper factory operators, and planing mills. In that group 35 cases out of three thousand.

Under organic dust we have millers, bakers, cooks, leather workers, cobblers, shoemakers and shoe factory operators, bookbinders, maltsters, candy factory employees, that includes bakers, and scale factory operators. In that group we had 71 cases out of three thousand.

Under animal and mixed fibre dust we had furriers, hatters and milliners, soap factory operators, woolen rag and cloth sorters, upholsterers, dressmakers, tailors, seamstresses, coat makers, collar makers, mattress makers. 112 cases in that group out of three thousand.

Under mixed dusts and gases we have boiler makers, machine and forge workers, mechanics, blacksmiths and horseshoers, chemical industries, soap makers and others employed in soap factories; that includes iron and steel founders and laborers, and trunk makers. Eighty cases in that group out of three thousand.

Q. You mentioned mechanics; that would include machinists?

A. We classify them because we happen to know they are employed in a place where they are subject to dust.

Q. All classes of mechanics? A. That includes all mechanics; only three of them that are reported as mechanics. I can't tell you offhand where they are employed. There are also about 373 other workers which we could not classify under one of those groups, because we didn't know exactly what the nature of their work was. As I said, those were reported as factory operators, places of employment not being known.

Q. What is being done by your Health Department to remedy these conditions? A. As far as the conditions in the factory are concerned, we are not doing anything beyond the educational work.

Q. How is that? A. That consists of lectures at various times and places. For instance, some of us occasionally address societies. I personally addresses several unions, and circularize and things of that sort that bring to the attention of the workers as far as possible, and in the limit of time at our command, the main facts in connection with the control of disease in factories.

Q. That is to say your lectures are devoted to curing the disease after they get it? A. Prevent it also.

Q. Also to prevent it? A. Yes.

Q. You have no power in your department to use any means to prevent it? A. I don't know of any power we would have to prevent it, or try to control it in the factory.

Q. What would you suggest or recommend should be done so as to prevent the disease? First, I ought to ask you whether in your opinion it can be prevented in most cases? A. As a general proposition it is true to say the disease can be prevented, although merely controlling the factory conditions would not prevent it. We also have to control the home conditions.

Q. Those are subject to your control? A. Either indirectly or directly.

Q. House conditions? A. House conditions.

Q. You can compel conditions to be such as would lessen tuberculosis? A. In the home.

Q. What would you suggest about lessening them in the factory? A. In general, anything which tends to improve sanitary conditions in the factory will tend to lessen just that much tuberculosis among factory workers. Anything that will tend to improve the air itself, to provide better general cleanliness, to provide general conveniences for personal comfort and cleanliness of the workers, to provide rest and various other factors of that kind which will improve hygienic conditions, will help very much.

Q. Would you suggest and recommend that those conditions be improved by compulsory legislation? A. Some of them, perhaps; some can't. I don't know.

Q. Those that can be? A. Those that can be, I think should be.

Q. Let us take this thing down to a dollar and cent proposition. Is it a fact that if a man works under improved conditions, his efficiency to work is increased? A. No question about that; it is.

Q. That is to say a man who works with insufficient light or bad ventilation or bad sanitary appliances, does not do as much work for his employer as one who works under better conditions?

A. Reasonable to think he wouldn't.

Q. So that as a pure matter of economy it would be a paying proposition to compel all factory owners to use sanitary methods with reference to light, ventilation and sanitary surroundings?

A. I believe it would pay them immensely in dollars and cents.

Q. Are there any other conditions which you examined, about which you wish to testify before the Commission? A. I would like to call attention, if I may, to just a few facts which are indirectly related to tuberculosis and its prevention. For instance, the one-hour lunch period I don't think should be lessened for the reason that others have stated here. Workers should have ample time for rest, washing their hands, and getting their lunch and eating it and digesting it.

Q. Is that also real economy? A. That, I believe, is a real economy. I think that children, young people, for instance, women under twenty, ought not to be permitted to do piece work that requires a strain. That kind of labor undoubtedly impairs a person's vitality, and anything that is a strain and impairs a person's vitality, reduces their resistance and makes them that much more liable to tuberculosis infection. In cases of children under a certain age, probably eighteen, there ought to be a periodic medical examination in reference to tuberculosis. An enormous number of children have it, especially in Buffalo.

Q. And enormous number have it in Buffalo? A. Yes, sir.

Q. Are they working children, or those who go to school? A. In many cases we don't know; in many cases it is impossible to tell whether they acquire the disease after they begin to work or before. In connection with that, I would like to call attention to the fact that although several witnesses this morning stated that they saw children who were apparently under size and employed, who had working papers from the Health Department; that should not necessarily mean the Health Department was lax in its supervision. The Bureau of Child Hygiene has certain standard requirements and if a child meets these requirements a labor certificate is issued.

Q. Is the child required to come back after six months or a year? A. I can't say; I don't think it is.

Q. Would you advocate that? A. I think that ought to be done. I think the power and authority for doing that should be vested in the Health Department locally.

Q. Do you believe there should be different standards for children employed in different occupations? A. I think, perhaps, that would be advisable. That would require a deeper study of individual occupations.

Q. What else, doctor, do you desire to address the Commission about? A. I believe also, as others have stated here, that there ought to be a periodic medical examination of employees in certain industries. For instance, in bakeries, and confectioners and people handling most food stuffs. Persons having certain diseases which were indicated by my chief, the Health Commissioner, ought to be barred from working in those trades, and also in those trades the man or woman should be compelled to furnish a medical certificate before being allowed to work.

Q. Have you any suggestions or recommendations to make to the Commission in regard to legislation? A. I believe in some instances the supervising of factory conditions perhaps has been done better under local boards than under the State. Perhaps it would be advisable to increase the Health Department's powers in certain directions, for instance, in regard to medical inspection of employees. It might be well for the Commissioner of Labor to have the power to appoint the health officer as a deputy factory inspector, to serve without pay, which would give him power to enter a factory and make inspections if he thought it advisable to do so, and to report to the Commissioner of Labor. That is done now in regard to milk in this city. Our milk inspectors have the power of factory inspectors, serving without pay.

Q. How do you get around the civil service law? A. I don't know what the details of that are.

Q. Have you anything further to suggest? A. Nothing except that I should have emphasized that Corney, probably the greatest student of tuberculosis that ever lived, has stated that a tuberculosis workman is more dangerous to his fellow employees than to his own family. That is undoubtedly for the reason that a man

or woman suffering from tuberculosis is active during the day, and raises most of the sputum, which is the infectious material, during the day, and is less apt to take cautions when away from home. One more thing naturally follows, that if there is so much tuberculosis in the dusty trades, that there ought to be an especially rigid supervision over the dusty trades.

By Commissioner DREIER:

Q. You say a great many housewives have tuberculosis. Have you thought out any connection with the wage of the family?

A. I don't quite get you.

Q. The connection of the low wage with tuberculosis? A. That would have a direct bearing in this way: that with the low wages, the family cannot possibly enjoy the amount and quality of good food that they should have.

Q. Can you give us any idea of the lack of cure resulting from the low wage? It could be cured in its first stages? A. It can in a majority of cases.

Q. How many cases do you suppose are lost or not cured because of the low wage? A. That would be very difficult to state, especially offhand.

Q. You haven't considered that at all? A. We have considered it in individual cases, but not to a sufficient extent to make it justifiable to make any statement.

Mr. ELKUS: We are very much obliged to you, Doctor, and I want to say for the Commission that the Health Department of the city has been very courteous, indeed, to the Commission, placing every courtesy of the city at their disposal.

JOHN R. SHILLODY, called as a witness and duly sworn, testified as follows:

Br. Mr. ELKUS:

Q. Give us your full name. A. John R. Shillody.

Q. What is your address? A. 627 White building.

Q. What is your business? A. Executive secretary of the Buffalo Association for the Relief and Control of Tuberculosis, one of the board of managers Raybrook Hospital.

Q. You are not a physician? A. No, sir.

Q. Will you explain what your society is and what its objects are? A. Our society is about three years old. I have been connected with it about two and one-half years. Our principal business is within the limit of our means and ability to see that the tuberculosis problem is properly handled by all private and public agencies, to assist in the co-ordination of the work and to do what we can for the treatment and cure of the tuberculosis individuals, and the prevention of the disease.

Mr. ELKUS: Please do not talk quite so fast.

Q. Will you tell us to what extent you have found tuberculosis to exist in Buffalo, and what remedies, if any, you suggest, particularly with reference to workers in factories? A. Our society is the only tuberculosis dispensary in the city in which persons unable to pay are examined. For that reason we have the most expert diagnosticians. We have a day camp which takes care of about 65 to 75 patients, five months a year. We have three classes in which are tuberculosis individuals unable to go to the sanitarium. We have no information with relation to factory or industrial conditions except what comes to us incidentally. I am familiar to a degree with the literature on the subject. I am especially interested in it. I have not all of that information to give it offhand.

Q. What do you suggest or recommend to the Commission? We have got the facts, I take it, pretty well before us. A. For one thing, I believe there should be a system similar to that which they have in Massachusetts. They have fifteen state medical inspectors of tuberculosis, who, under the law as originally enacted in 1907, had the right and power to examine all minors, female and male. The employer was obliged to provide a room so that chest sounds could be heard, and individuals were there examined. The law was afterward amended so as to apply to employees eighteen and under. The Tuberculosis Association and the inspectors who were working in the district were able to co-operate. Many of the employers, a large number of them, desire to help

in the prevention of the disease, and it has a good effect in Massachusetts.

One day in Buffalo for the Commission is altogether inadequate, and the time your inspectors have been here was not sufficient to enable them to cover the ground. I think an investigation which might include other occupational diseases would be of extreme value. Such an investigation was undertaken in Massachusetts in 1907.

Q. What else do you suggest, and please do not talk so fast?

A. I think that the present State laws that we have are very good. However, we have only four inspectors in this district, and they cannot possibly cover half. I think the amount of money spent for the inspection of factories has been very low and the department probably has, as some of its inspectors told me, made on an average of one inspection a year.

Q. That, of course, is not sufficient? A. No.

Q. How many inspections do you think ought to be made in the factories each year? A. I should say it would require at least four — probably six.

Q. Have you anything further to suggest or recommend to the Commission? A. I am in thorough accord with those who testified with respect to the lunch hour, which the State factory law provides shall be granted, excepting that the Commissioner of Labor shall be granted permission to have it a half hour. I don't know how extensive that is; I have never seen any of the factories where the half-hour notice is conspicuous. Another provision I would suggest is that where the dust is extreme, the employee should be compelled to wear other clothing than their street clothing; they should be provided with overalls; provision should be made for the proper washing of that clothing, and the proper facilities for washing the hands of the employees. In one industry I know of the employers themselves claimed that lead was used in glazing the pottery, but the employees ate their lunch without washing their hands, and in that way ran the risk of a dangerous poisoning.

Mr. ELKUS: We are very much obliged to you.

H. F. J. PORTER, called as a witness and sworn, testified as follows:

By Mr. ELKUS:

Q. State your full name. A. H. F. J. Porter.

Q. What is your occupation? A. Consulting engineer.

Q. And you have made a specialty or study of the factories in the State of New York with a view of safety in case of fire?

A. Yes.

Q. For how many years? A. For some seven or eight years.

A. Are you attached to the Commission in any capacity, and if so, what? A. Advisory capacity.

Q. With reference to fires in factories and safety prevention?

A. Yes, sir.

Q. Now, Mr. Porter, will you state briefly just what study of the subject you have made, that we may have it on the record?

A. In the city?

Q. Yes, in this city, and also the general subject. A. Perhaps I had better touch on the city question first, because I may not have time to go into the other. I got here on Friday evening, and on Saturday morning I visited the Jewett and Caxton buildings with the inspector, who spoke about them this morning. Those two buildings are representative of about the worst fire hazard that you can have anywhere. The buildings themselves are very old, and they are occupied by a number of trades that are using very inflammable materials. The building is of non-fire-proof construction, and has been very heavily overloaded, so that some of the floors have to be specially trussed. The building is filled with paper and boxes, chemicals and printing establishments, which use a great deal of paper and boxes and inflammable material generally. Both buildings are pretty crowded with people. The stairways are of wood. The two buildings are connected above the second floor by bridges; these bridges are of wooden construction, so that, although they are intended to act as fire-escapes, they are really very poor fire-escapes.

Q. Mr. Porter, may I interrupt you a moment? A. Yes, sir.

Q. You have had a great deal of experience in buildings of that kind; you have made a study of conditions. Can you tell the

Commission your opinion as to what would happen in that building if there were a fire, as to loss of life? A. In the first place, counsel, there is no method of advising anybody in the building that a fire is taking place.

Q. They would never find out? A. They would never find it out. In the next place, if they attempted to escape it would be after the fire had grown to be a large fire, and I don't believe people would escape. The building is sprinkled, and in that way it would be to some extent protected, but the out-of-the way places are filled up with all sorts of refuse, that has been lying there for a long time, and would, I have no doubt, cause such a headway to be obtained by a fire that the sprinkler system, I do not believe, would have much effect. The fire-escapes on that building would be absolutely worthless. There are several fire-escapes, of the obsolete type of which a good deal has been said to-day; find them all over the city where the ladder comes down to within twenty-five feet of the ground. There has been some effort on the part of the Fire Department to correct those fire-escapes.

Q. Let me go back to this building a moment. From your inspection of the building, if a fire once got headway there, how many lives do you think would be sacrificed? A. Well, I think several hundred. I don't see how they could get out at all. None of them could escape by the fire-escapes.

Q. Do I understand you to say, Mr. Porter, that the conditions there are just about as bad as they were in the Triangle Waist factory building in New York? A. A great deal worse, and besides that this is a conflagration hazard to the city of Buffalo.

Q. What do you mean by that? A. I mean if a fire started there, it would probably sweep a large part of Buffalo, right in the center of the city.

Q. If this building caught fire in its present condition, the lives of 200 people would be sacrificed more or less, and the lower part of the city would be in danger? A. I think so.

Q. You consider it a pretty bad fire trap. A. Very bad.

Q. How long has that been in that condition? A. I think very many years. It is a very old building, belonging to an old estate that has many buildings of this type throughout the city. After

going through that building, I had some interviews with the Chief of the Fire Department, who stated himself this morning that he thought the only thing to do with that building was to pull it down. I had some conversation also with the Deputy Chief of the Building Department with regard to the Building Code. Now, I find that there is no authority in the city for establishing in any factory or in any building in the city, any kind of fire-alarm system, so as to notify the people in the building that there is a fire. There is an effort in the Building Department to install a fire-alarm system in theatres, to notify the Fire Department that there is a fire. There is no requirement for any department to install fire-extinguishing apparatus in any building excepting theatres. There is authority to put standpipes in buildings, but no sprinkler systems, no chemical extinguishers, no buckets or anything of that kind, and there are none except in factories where they have been voluntarily installed by the manufacturers.

Q. Did you investigate to find out whether there were any complaints ever filed with any city authority against this building that you have described as a fire trap? A. No, sir; I had very little time.

Q. I understand. A. There are no requirements in any of the departments against doors opening inward. At the base of one of the stairs in the Jewett building the door opens inward, and I think if there was a rush down those stairs nobody would be able to get out at all on account of that door.

Commissioner DREIER: I think that was a State law.

The WITNESS: I don't think so. This is a door opening into the street, an outside door.

By Mr. ELKUS:

Q. Do you understand the authorities at Buffalo realize that a building in such a condition exists here? A. There have been incipient fires in that building.

Q. Do you think they realize here the danger of that building, both to life and to other buildings in the city? A. I can't answer that question.

Q. Do you believe if they did know it they would permit it?

A. I think they would be aroused to take some action about it.

Now, in talking with the Deputy Commissioner of the Building Department I find that when plans are submitted to that department, they consider the number and width of stairs to be installed in the building, and that number and width are guided by the occupancy of the building. Now, no one can tell in advance when a building plan is submitted, what is to be the number of people which will be on any floor of that building. It is entirely a guess on the part of anybody, and yet that establishes the number of stairs and their width. The width of the stairway from any floor down should be determined not only by the number of people on that floor, but on all the floors above. Now, after the building is built and is then occupied, the Building Department does not interest itself any further, unless complaint is heard, and then they take action in regard to changes of construction. There is a requirement that stairs in non-fireproof buildings shall be two in number, three feet wide for every three hundred people in the building and three stairs five feet wide where there are eight hundred people in the building. Those are for non-fireproof buildings. For fireproof buildings they are allowed to put one stairway less in. In talking with the Deputy Commissioner he felt at first, I think, that that law was all right, but after talking with him further he realized that it was not only the escape from fire which had to be considered and the number of stairs, but it was the adequacy of the stairway itself that had to be considered and that the fireproof quality of the building made no difference. The stairway in the fireproof building was no more adequate than the stairway in the non-fireproof, so they ought not to cut down the number of stairs and the width simply because the building was fireproof.

They have a very good section in the Building Code, requiring fire walls in factory buildings and in store buildings, and I find that this section has been enforced with the exception, occasionally, of a case where there was some particular reason brought out by the owner when he made his application. In that case the request was brought before the Board of Aldermen, and the action taken by that board. He was generally relieved of the requirement of

putting in the fire wall, but there is that section now, where in the non-fireproof building of 6,000 square feet, or a semi-fireproof building of 12,000 square feet and a fireproof building of 30,000 square feet there must be an inner wall and either side of that wall is to be treated as an independent building, and stairways applied in accordance with the rule which I read above.

Q. You have finished on the Jewett Building? A. Nearly.

Q. Are you coming to the other building shortly? A. Yes, sir; I merely want to say that it is left to the Fire Department to determine what fire-escapes are suitable and adequate, and they do not interest themselves particularly in the fire-escapes of this obsolete type of which so many are around the city.

Q. Have you made experiments as to whether it is possible for an ordinary man or woman to go down or up these fire-escapes to which you refer? A. We can't go down or up, and when people try to get out on them, they simply obstruct each other, and they stick there.

Q. Why can't they? A. They obstruct each other.

Q. They are very difficult for one person to go down? A. Yes; several people crowd out on these balconies from each floor and obstruct each other going down.

Q. So they are practically useless? A. Yes, sir. No fire drills or anything of that kind are considered in the city.

Q. No such thing as a fire drill in the city? A. No, sir.

Q. No manufacturer ever had one in the city to your knowledge? A. Not that I could hear of.

Now, in the afternoon of Saturday, I visited this Buffalo Forge Company of which the inspector spoke and the representative spoke.

Q. Buffalo Forge Company? A. Yes, sir; I considered that a very old industrial establishment which has allowed itself to become practically obsolete in all its methods and everything it is doing. The inefficiency of the methods of operation could not be exceeded, and they have in their own line of trade, two other companies, not in this city, one in New England, one in the west, which are examples of the very best type of manufactories.

Q. You mean to say, they discriminate against Buffalo? A. I don't know just what it is, but the gentlemen who represented them here knows those people; they are in the same line.

Q. Mr. Booth was here? A. And one of them is managed by a classmate of his and he has been to see the places, visited them, and knows how they are operated.

Q. So the manager here is perfectly familiar with the way a plant ought to be managed and conducted and operated? A. The office manager is.

Q. You say that is simply inefficiency; let us use plain English about it. What kind of a factory building is it? A. Well, it is a group of very old wooden shacks, you might say, two or three brick buildings with wooden stairways, and in every way an obsolete type of building.

Q. Now, what would you say as to any one escaping from it in case of fire? A. Well, I think it would be very difficult. They would have to be athletes, and very agile to get out.

Q. In case of fire in that building, what would you say would be the loss of life? A. I don't think the loss of life would be very great, because the people are pretty nearly down on the ground. There are a few people up in the air, and by being very agile they could get down.

Q. If they knew of the fire? A. If they knew of the fire in advance, but with regard to the inefficiency, I want to speak particularly of the lighting. The employees are practically compelled to work in the dark. There are some lights for general illumination, but they only shed a very poor glow over the place and the other lighting consists of lights dropped right in front of the eye of the workman, so that he is almost compelled to do his work in the dark. Now, in these other buildings that I speak of, the buildings are practically all glass, roof construction, concrete buildings.

Q. Of this same company? A. The same type of work of their competitors, and these buildings are very modern and examples of high efficiency and operation. There is no care of the toilets there whatever.

Q. You mean to say, that they are never looked after at all? A. Practically not. There are wash basins in the same room that have no water; don't operate. There is an indifference to the interests of the employees that is extraordinary. They have a sand blast there, which is a very dangerous machine. It blows sand

all over, and the inhaling of the sand is one of the best means conducive to tuberculosis. They never have instructed that man that operates the lead melting pot. There are no suction draughts over these pots. There are no suction draughts to the emery wheels, or no guarding the emery wheels or to the polishing wheels, except in one or two cases, and yet they issue pamphlets explaining the dangers of these very processes and recommending that their appliances be bought and put into other factories.

Q. You mean, this company manufactures safeguards which they recommend to other people to use, but don't use them themselves? A. Yes, sir.

Q. And they explain how they would save life and danger to limb if they did use them, and don't put them in operation in their own factories — is that right? A. Yes, not exactly safety to limb. They don't make that kind of apparatus, except that they make guards for emery wheels and thus protect the help.

Q. In other words, they don't practice what they preach? A. No, they do not; the machinery is absolutely unguarded, in the belting and gearing and all appliances that they have through the factory. Fire protection is not considered at all; they have no fire extinguishing apparatus.

I have not found in the city of Buffalo, any effort on the part of either employer or employee to do what is being done in New England and a number of other States with regard to protecting the employees from tuberculosis. There is no effort to segregate the tuberculous, or investigate the condition of the health of any employee on being hired, as to whether he has tuberculosis or not, or supplying sputum receptacles or segregating the employee who is not healthy.

Q. How many factories did you yourself examine in Buffalo? A. Just one factory.

Q. That was called to your attention by an inspector? A. Yes, I interrogated the inspectors who had been here for a week or more and some of the employees of these factories and other factories and, in general, got an idea of about how things are built in Buffalo.

Q. Have you anything further at this time to say to the Commission? A. No.

Mrs. Fox, called as a witness and being sworn, testified as follows:

By Mr. ELKUS:

Q. Mrs. Fox, you are connected with the Charity Organization Society? A. I am.

Q. Of the city of Buffalo? A. Yes.

Q. In what capacity? A. Assistant secretary.

Q. How long have you been assistant secretary of that society? A. Not quite two years.

Q. Mr. Wilcox has been here and explained the purposes of the society. He said you were familiar with the work which had been done by the society, and the conditions among factory workers, and would be able to give us information and recommendations with regard to them, their hours of labor, lunch hours; also as to sanitary conveniences, separate lunch rooms, and some means of washing their hands, and things of that sort. A. Well, I think Mr. Wilcox didn't quite correctly state my position in that matter, because I can give no direct testimony in regard to those matters.

Q. I understand that, but you have a knowledge of them derived from your position? A. Yes; I have a general knowledge, of course, which has been practically the same as the testimony given here to-day by Mrs. Gardner. We feel very strongly the importance of the work of this Commission, because one of the preventable causes of poverty is sickness and accident combined, and in working with the destitute families of the city we find that sickness appears in pretty nearly half of the families we have to do with. That is not, however, all industrial sickness, or sickness that has to do with the occupation of the person. A number of our families, between one-third and one-fourth, are widows, and we know from investigating the causes of the deaths of the husbands, that a large percentage might not be widows if the health and life of the employees were better safeguarded, and probably there would be about three thousand orphans, children of those widows — I don't mean that they could all be saved.

Q. How many? A. I don't think I dare give a figure without making a calculation.

Q. You are satisfied from your investigation and reports made to you, that a considerable percentage of those widows would not be widows if industrial conditions were better? A. Decidedly, yes.

Q. A considerable percentage of those 3,000 orphans, would not be orphans if conditions under which their parents worked had been improved? A. Yes.

Q. Of course, if that were so, these people would not be compelled to ask for aid in your society? A. No; I think that sickness has a great deal to do with the destitution of the families of the city. In the tabulation of the sickness of the 2,500 families we had last year, the greatest number were afflicted with tuberculosis. That stands highest. Then comes various injuries, not always industrial injuries, because they include railroad accidents and street accidents of all kinds, breakage of arms and legs and ankles and wrists, any and everything you can think of — but they come next after tuberculosis. Then after that the largest percentage is rheumatism which occurs among laborers of all kinds, principally laborers who are exposed to the weather. Of course, those are not factory laborers.

Q. Those who work in the packing company where they have to stand in water get rheumatism, don't they? A. Yes, they do, and we have had rheumatism from men who work in mines, and men whose working conditions seem to be directly responsible for that.

Q. You think the luncheon hour for women, children and men should be at least an hour? A. Decidedly.

Q. Should be made compulsory? A. Yes, sir.

Q. Would you be in favor of compelling all factories to be licensed? A. I would be in favor of registration of all factories and licensing, if it could be enforced. I think that better supervision and inspection of factories is absolutely essential, and if that could be brought about by a license method, I think it would be very advisable.

Q. How about medical examination of employees, especially in factories where food products are produced? A. Very important, I should think.

Q. You would recommend it? A. I would recommend it.

Q. What other matters would you like to address the Commission about, and what suggestions have you to make toward

remedial legislation? A. I don't think I have any suggestion other than those that have been given — the registration and supervision, especially in all of those occupations that are dangerous to health in any way.

Mr. ELKUS: We are very much obliged to you.

PETER G. SCHWARTZ, called as a witness, and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. Will you give us your name? A. Peter G. Schwartz.

Q. What association or society are you connected with? A. Moulders'.

Q. What is the name of it? A. International Moulders' Union.

Q. Of Buffalo? A. Of Buffalo.

Q. How many members are there of that union? A. About eight hundred in the city.

Q. Is that only men, or women? A. Men only.

Q. Now, Mr. Schwartz, are you familiar with the conditions under which women are employed in foundries? A. From personal observation, I have not been able to make any investigation, because I have not been able to get into foundries in which they are employed.

Q. Tell us what you have learned as to the employment of women in foundries. What do they do and how are they employed? A. The women in the core room, as far as I can find, are served no better than the men. The conditions under which they work are not any better than the men, and in some instances are worse. They are working in core rooms all by themselves. They have the smoke and gas coming around there that is very weakening at times. When the cores begin to dry and begin to burn, then is the time when the gases and smoke begin to come through the ovens. The toilets they use are in a very filthy condition.

Q. Men and women use the same toilets? A. I could not say; I know the toilets the women use are very filthy in some instances.

The general conditions surrounding the women coremakers are not what the men would like to have. They are making cores that are too heavy for them to carry, and such other conditions as make it undesirable for them to work.

Q. What are the moral conditions there? A. As to that, I could not say.

Q. Of course, we can draw our inferences? A. Yes.

Q. Have you described fully the conditions as you have learned them, of the women working in these foundries? A. As near as I can get from the men. I have never been able to go there and observe that myself, otherwise I would be able to talk more intelligently.

Q. What suggestions have you to make with reference to that? A. The suggestion I would make, is to make the foundries sanitary, and give them equal pay with men. They are doing men's work, and should receive equal pay.

Q. You mean to say, these buildings are not inspected properly, so they are not sanitary? A. They are not sanitary.

Q. They are dirty, filthy and uncleanly? A. Dirty, filthy and uncleanly all the way through.

Q. Would you be in favor of constituting an authority in a State Board or a local Board? A. I would rather see it in a local Board.

Q. Suppose the State Department had a local bureau here, with authority in the local bureau to act, would that be satisfactory? A. That would be satisfactory, yes, sir.

Q. Under the law passed by the Legislature, there is to be a Department or branch of the State Board here. If that was carried out, and there was such a branch here, that would be sufficient in your opinion? A. Yes; that would be sufficient in that respect.

Q. Have you anything else to suggest to the Commission? A. I want to speak of the general condition in the foundry, existing not only here, but throughout the entire section, in regard to the draughts coming in the foundry. The moulder is naturally working very hard and perspiring a great deal; a big door opens and closes and draughts come in there continually by which the men take cold and sometimes have to lay off, and there is no proper ventilation in foundries.

Q. You mean in all foundries? A. No, in most of them.

Q. Proper ventilation can be had? A. In some of the foundries, in others there is not.

Q. Too old? A. No, too low. They ought to be either raised up or rebuilt; there are steam and gases and so forth that generate in foundries that are not taken off, and it makes it bad for the men to work there around in the evening when the steam and smoke arises, when they are casting and they can't see the way to do their work. They are not properly heated or properly ventilated in any way, shape or manner. Some of the foundries we have here, of course, are pretty well ventilated and heated. The water closets and washroom and so forth, are not kept up in a great many of the foundries.

Q. You find the most of them filthy? A. As a rule, they are not properly taken care of at all.

Q. Not taken care of at all? A. Once a week.

Q. Once a week instead of every day? A. Yes.

Q. They are dirty and not flushed? A. Yes.

Q. And a menace to health? A. They certainly are. All of these things come from lack of sufficient inspection and power to enforce the laws we have on the statute books to-day.

Q. There is plenty of law about making them cleanly and there is too much duplication of authority of inspection? A. Yes; now we have an open stove or salamander; it is put in the foundry and left open and this causes gases and fumes to come from that stove.

Q. Now, a salamander is nothing more than a big iron or metal barrel? A. Open.

Q. Open at the top where they put a lot of coal or coke and light it? A. And light it.

Q. And all the fumes come right out in the room? A. All the fumes come right out in the room.

Q. No chimney? A. Or stack to it.

Q. The idea of a salamander was, it should be put in a building in the course of construction which was open to the air and which is simply a temporary means of heating for a few days or a few hours, and in the foundries they keep them there permanently as

the only means of heating? A. The only means of heating in some of them.

Q. Those ought to be prohibited? A. Those ought to be prohibited; they make so much gas that men come out at night and have to vomit when they get out in the air. One of the things we would like to have and that is more frequent inspection in the foundries, and have some one not only in the foundries alone, but to have someone who inspects a certain industry, a man of that craft.

Q. How often do you think inspection should be had? A. At least once in three months.

Q. How often are they inspected now? A. About once a year; hardly that.

Q. Do you favor a licensing of foundries; of all factories rather? A. No, I don't know as I would.

Q. Would you favor registration? A. I would favor registration.

Q. That is, compulsory registration? A. Yes.

Q. Now, is there anything further, Mr. Schwartz? A. There is nothing further that I can think of just now.

Q. Have you any further suggestions or recommendations to the Commission? A. No, I believe I have given you all in regard to the whole subject of inspection for all foundries, so they will take care of cranes, ladles and so forth.

Mr. ELKUS: We are very much obliged to you, Mr. Schwartz, and I want to say that we appreciate the attendance of so many labor representatives, and their cordial assistance to the Commission.

By Commissioner PHILLIPS:

Q. Mr. Schwartz, you stated that in some foundries they do not experience draught when doors are open. How are they constructed? A. There is a shed built around the door.

Q. Like a vestibule? A. Like a vestibule, so the draught don't come in direct; some on the outside and some on the inside.

Q. That doesn't prevent them carrying in anything back and forth? A. No. They can bring it in one door and go right through; it prevents the draught.

Q. In that way, when the door is closed the draught does not go through? A. No.

Mr. ELKUS: Is there anything further that you wish to state? A. No.

The VICE-CHAIRMAN: The Commission stands in adjournment until eight o'clock to-night at Room 22, second floor.

BUFFALO, N. Y.

EVENING SESSION.

The Commission met pursuant to adjournment, eight o'clock P. M.

Present:

Same as before.

JOHN C. DALY, called as a witness, and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. What is your full name, Mr. Daly, and your residence? A. John C. Daly, 21 Gifford street, Syracuse, New York.

Q. What is your business? A. I am a member of Typographical Union, and now representing the International Typographical Union.

Q. What office do you hold in the union? A. I am now representing the International Typographical Union as an organizer or representative.

Q. How many members has the union in the city of Buffalo? A. I believe they have at the present time about 470.

Q. Mr. Daly, are you familiar with the printing shops and other places where the members of your union are employed? Are there any non-union shops? A. In Buffalo?

Q. Yes. A. Yes, there are, I cannot tell you just how many, because I have not been in Buffalo very long. I have been here

about two months and a half, because I shift from time to time between Buffalo, Rochester and the surrounding towns.

Q. Are you familiar with the conditions which obtain in Buffalo and Rochester—do you go as far as Syracuse, too?

A. Yes, that is my home.

Q. Buffalo, Rochester and Syracuse? A. I do not do any organizing in Syracuse, but that is my home.

Q. Buffalo, Syracuse and where else? A. Lyons, Newark, New York and Watertown.

Q. We will confine ourselves to Rochester and Buffalo. Will you tell us the conditions under which the men work in those two cities in your trade? A. Conditions in what way?

Q. Is there anything that you desire to call the attention of the Commission to either in your union shops or non-union shops?

A. Well, so far as the shops are concerned in this city, I do not know very much about that. I have been in most all, perhaps, of the new special offices, but as far as the condition of the job offices are concerned, I know practically nothing about them, because I have not visited them with the exception of the newspaper offices, and the Catholic Union and Times. The conditions in some of them, of course, might be remedied a little, might be made a little bit better than they are—one shop in particular that I do not care to say anything about in public——

Q. Without telling us the name of the shop describe the conditions which you think ought to be improved. A. Well, I should imagine that the toilets, for one thing, are in a deplorable condition in the particular shop I have reference to. I am very much surprised that the men who are working in that shop have not called the matter to the attention of the health authorities long before; and in some of the other offices, of course, I hear more or less grumbling as to conditions that might be avoided, sanitary conditions. But in this particular shop the condition ought to be changed. I would hesitate to state where it is in public, but I am willing to state it privately.

Q. You would give that to the Commission privately? A. Yes

Q. Now, are there any suggestions or recommendations, Mr. Daly, that you would care to make to the Commission, with reference to remedial legislation? A. No, I do not know that there is at present.

Q. Are you in favor of registering or the licensing of every manufacturing establishment? A. Well, I have not given that matter any considerable attention. I do not know that I would care to answer it offhand.

Q. Are there any matters as to which you would like to address yourself to the Commission, any information about your trade? A. You have simply taken the conditions as they are in Buffalo, but you have not touched on the Rochester situation at all as far as the printing offices are concerned.

Q. How about Rochester? A. Some of the newspaper offices there have been sadly in need of ventilation and sanitary conditions. Those offices should be looked after.

Q. Would you like to name which ones? A. I will give that to the Commission privately.

Q. You will give me that information privately. Now, will you describe the condition that ought to be improved in Rochester, without naming the places? A. Yes. The toilets, for instance, need more ventilation. The conditions are crowded. There is not enough room for a number of men who are working in the places to get around; the air is bad.

And there is more or less complaint, but, as we find in most every printing office, no man wants to be the man to go to the proprietor and tell him about the conditions, because he feels he might be made a marked man and discharged.

Q. He feels he might be made the goat? A. That is the idea exactly.

Q. But you say that there are conditions there which require improvement? A. Yes, indeed.

Q. Well, outside of the newspapers, the offices which you have not named, are there any other places there, of which you have knowledge, which require improvement? A. Well, I would have to think that over a little. I do not know; that would depend on what kind of change would be proper. I did not know I was going to be called here to testify or I would have been primed.

Q. Yes, Mr. Daly, that is our thought. Are you going to be in Rochester to-morrow? A. No, I will not be in Rochester for a week anyway.

Q. Are you going to be in Troy on Saturday? A. No.

Q. Do do not go down as far as that? A. I do not go down as far as that, I can go as far as Watertown. You see, I make a jump from Rochester to Watertown, and I am only there for perhaps one day or so.

Q. I tell you what you might do, Mr. Daly. If you think of any suggestions, after thinking the matter over, to make to the Commission, or any facts you wish to lay before it, if you will put them in writing, we will incorporate it in your testimony. A. All right, sir.

Q. And if you do not wish the names made public, we will, of course, respect your injunction. A. Well, a little later on I would not be a bit backwards about having them become public, but just at the present time, negotiations and so forth —

Q. I understand. Well, now, can you let me have any information before the 15th of December? A. Yes.

Q. If you will send it to me at my office, 170 Broadway, New York city. Just put it in any form you like, just a letter, and I will see that it is incorporated in your testimony.

By Commissioner DREIER:

Q. What about fire dangers? Can you tell us anything about that? A. Well, no. I would have to look up that. I can also let the Commission have that later on. As I say, had I known I was to appear before the Commission, I would have been prepared with all this evidence and testimony.

Mr. ELKUS: We are very much obliged to you, Mr. Daly.

WILLIAM P. KILCAWLEY, called as a witness, and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. Mr. Kilcawley, what is your full name, and your residence? A. William P. Kilcawley, 286 Carolina street.

Q. What is your business? A. Printer.

Q. How long have you been a printer? A. Over thirty years.

Q. And are you a member, or do you hold any office with the unions? A. As auditor only

Q. Auditor? A. Yes.

Q. How long have you been an auditor of the union? A. Oh, off and on for about ten years.

Q. Mr. Kilcawley, your union only applies to the city of Buffalo, or elsewhere? A. City of Buffalo.

Q. And how many members are there of your union? A. About 470 or 475.

Q. And that is the same union to which Mr. Daly referred? A. Yes.

Q. Have you made any inspections of offices and factories where your members are employed in this city? A. No, not in particular.

Q. Can you enlighten the Commission as to the conditions under which the members of your union or non-members of your union work, who are in the same trade? A. Well, only in the union shops; the conditions are very fair in Buffalo, but so far as the non-union shops are concerned, I am not in a position to say, although I have heard they are not.

Q. What is your information with reference to non-union shops? A. That some of them needed a great deal of attention so far as the sanitary end of it was concerned.

Q. Can you give us any details? A. No, I cannot go into details.

Q. You have been informed that the sanitary conditions were not good? A. Were not good.

Q. How many non-union shops are there? A. Oh, there are, perhaps, in the neighborhood of fifteen or twenty, maybe more, that is counting the little small shops — one-man shops.

Q. Now, are there any conditions in shops of which you have knowledge, which you desire to lay before the Commission which require any remedy? A. No, not any.

Q. Have you any suggestions or recommendations to make to the Commission? A. No, I do not know of any suggestions that I could make; I do not know what the recommendations are, because, as I say, in the shops we control ourselves, conditions are fair, very fair.

Q. What are the conditions in reference to fire, for fire prevention and safety in case of fire? A. I think they are good.

Q. Well, have you any facts or information or anything at all you wish to lay before the Commission? A. I do not know of anything unless you have something in mind.

Q. Are you in favor of registration of manufacturing establishments with some — either State or City Department? A. What would be the purpose?

Q. So that the Department may know what are the manufacturing establishments and where they are located. A. I think it would be a good thing.

Q. Would you be in favor of there being a license before they could begin business, after an inspection of their quarters to see whether they were proper? A. Yes, I think I would be in favor of that.

Q. Do you think you would be in favor of such license being renewed at the end of every stated period after examination, to see whether they comply with the law? A. Let me ask first for information, licensing to see they were in proper shape, sanitary or otherwise?

Q. Sanitary or otherwise. A. Yes, I would be.

Q. You know at present, neither the City Department nor the State Department have any way of finding out where a manufacturing establishment is located except as they happen to come across it or it is reported to them by some outsider or some union. Now, the idea of my question is to find out whether you would be in favor of both registration and licensing, and if so, how it could be controlled? A. I think it would be a good idea for registration and licensing both, because, as you say, it would be convenient for the factory inspector to find them and see if they were obeying the factory laws.

Q. Do you think the sanitary arrangements and the inspection of a business or trade such as you are connected with, should be left to the City Department entirely or to the State Department of Labor? A. I would prefer the State.

Q. And would you give the State sole control? You see, at the present time, there is a duplication of inspection, duplication of control over many industries, and in order to do away with this duplication, the Commission is desirous of finding out whether it is preferable to give it to the State entirely or give it to the

city. A. Well, so far as I know, the State has handled that thing almost entirely, hasn't it?

Q. Well, is there anything further, Mr. Kilcawley, that you would like to say to the Commission? A. No, there is not.

Mr. ELKUS: In behalf of the Commission, I thank you very much.

EUGENE A. CHAMBERLAIN, a witness duly called, being sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Mr. Chamberlain, what is your business? A. Real estate business.

Q. You were asked to come before the Commission in reference to some appliance that you have, which you believe will be a preventative of fire, is that it? A. Yes, sir.

Q. Just state it. A. It is a patent shut-off gas valve in case of fire in large buildings, attached to the main service pipe from the street to the meter. It is attached to the meter with a rod or a wire run out outside of the building where the firemen can readily get at it with a key to pull the valve. If the building is afire inside that shuts off the gas from the street pipe, from the service pipe from the street. This has been adopted in the western cities, Kansas City and Chicago.

Q. Does it work automatically, or does somebody have to turn it off? A. It works from a key from the outside.

Q. You mean, somebody has to go and turn it? A. Oh, yes, in case the building is on fire.

Q. In case of fire, they can turn off the gas in the entire building from the outside by the use of this appliance? A. Yes, heretofore they have to go down into the cellar and turn it off.

Q. Where is this located, on the sidewalk, under the street, or where? A. Right on the sidewalk, outside the building.

Q. Is there anything further you would like to say about it, Mr. Chamberlain? A. Nothing more than to bring to your notice that there was such an appliance which other cities are adopting and putting out.

The VICE-CHAIRMAN: Have you got it there with you?

The WITNESS: I have a model of it.

By Mr. ELKUS:

Q. Suppose you show the Commission the model.

(The witness produces model of appliance testified to, for the inspection of the Commission.)

Q. I want to ask you for the purposes of the record, Mr. Chamberlain, whether, after a fire takes place in a building, there is often a gas explosion because the gas pipes are broken — which adds to the fire and causes loss of life? A. That is right.

Q. Your idea is, as soon as a fire starts, the gas can be turned off from outside a building by a very simple device — that you can cut off the gas in the whole building? A. Yes, the first thing the firemen do is to go and shut off the gas from the outside; they do not have to enter the building at all.

Q. Is that an expensive appliance? A. No, sir, they are very reasonable; from \$17 to \$46.

The VICE-CHAIRMAN: Is there any other one besides this one on the market?

The WITNESS: I think there are others, yes. Aside from lessening the danger to the firemen and lives in this building, it is a protection to the building and the property itself.

Commissioner DREIER: The firemen have a key to fit it?

The WITNESS: Yes, the Fire Departments wherever it has been adopted are greatly in favor of it.

By Mr. ELKUS:

Q. What kind of a key have you got to have to close it? Is it any wrench, or does it require a peculiar key? A. A key that fits the box, a special key.

Q. You say it has been passed in what States? A. In Illinois it is a State law.

Commissioner DREIER: Does the law apply to cities of the first and second class, or throughout the entire State where many people are congregated?

The WITNESS: I am not positive just how the law reads; I have a copy of it though, which I can furnish the Commission.

By Mr. ELKUS:

Q. I wish you would send me a copy of it if you will, Mr. Chamberlain. A. Yes.

Commissioner DREIER: You can give us the names of the other cities?

The WITNESS: Yes, I can give those now. Kansas City, Chicago, St. Louis, Cleveland, Detroit and Cincinnati have adopted it now.

Mr. ELKUS: Anything further from the Commission? Thank you very much, Mr. Chamberlain.

Mr. Chairman, we have had a long day's session, and we expect to have a long session in Rochester to-morrow. The only witness to be heard now is Dr. Carr, and while we would like to hear him very much, as he is a very well known expert and has given much time and made a great study of these subjects, I suggest, as he is not here, that we take a recess now until to-morrow morning, and meet in Rochester at ten o'clock to-morrow morning.

The VICE-CHAIRMAN: The Committee will stand in recess until to-morrow morning at ten o'clock in the city of Rochester.

(Shortly after adjournment, Mr. Alexander G. McKenzie appears, and it being deemed important to take his deposition at this time, the Vice-Chairman re-convened the Commission, at 8:45.)

ALEXANDER G. MCKENZIE, a witness called, and duly sworn,
testified as follows:

Examined by Mr. ELKUS:

Q. What is your full name, Mr. McKenzie? A. Alexander G. McKenzie. I wish to state that any remarks I make will be unofficial, however.

Q. What is your full name? A. Alexander G. McKenzie.

Q. What is your business? A. Factory inspector.

Q. And how long have you been a factory inspector? A. I have been a factory inspector only about a year, been in the Department about three years.

Q. And before you were factory inspector what were you? A. A mercantile inspector.

Q. Now, Mr. McKenzie, the Department you refer to is the Department of Labor of the State of New York? A. Yes, sir.

Q. And have you been assigned since you have been a factory inspector, to the city of Buffalo? A. Yes, sir.

Q. This city alone, or any other? A. No, in the district known as the Western District, which takes in four counties.

Q. The four counties, their names please? A. County of Erie, Niagara, Orleans and Genessee County.

Q. What cities are in those counties besides Buffalo? A. Lockport, Buffalo and Niagara Falls.

Q. The principal factory district is in Buffalo? A. Yes, sir.

Q. How many other factory inspectors are there in the city of Buffalo? A. Only one here permanently.

Q. Who is that? A. Mr. Wilson.

Q. He is in the city of Buffalo alone? A. No, the two of us are in this District, four counties.

Q. What is Mr. Wilson's full name? A. Mr. Sidney T. Wilson.

Q. What is his address? A. I think it is 117 North Ashland avenue.

Q. Now, Mr. McKenzie, what is your system as to inspecting factory buildings in the city of Buffalo? What system do you follow in inspecting them? A. Well, when I go to a factory, I usually go to the boss.

Q. But before you go to the factory, how do you find out there is a factory? A. We work from a card file on which are contained about all of the factories in our district we know anything of; all the factories are on those cards.

Q. Who furnishes you with this card? A. Mr. Wilson keeps the card file at his home.

Q. Where does he get it? A. It is furnished by the State.

Q. And how often do you inspect factories, and under what arrangements between you and Mr. Wilson do you inspect them?

A. Well, we take the cards, and we go to a certain village or a city and work from our card, covering as many factories each day as possible, according to the size of the work to be done there

Q. Do you go together? A. Oh, no.

Q. Now, you have a card file do you? A. Yes.

Q. Which Mr. Wilson keeps? A. Yes.

Q. And what factories does Mr. Wilson examine and what factories do you examine? A. Well, there is no division about that, except that we try to break up the work, that is, I will take a certain district one year and he takes it the next year, so that the same inspector will not be following.

Q. Do you inspect each factory once a year? A. We attempt to inspect them.

Q. You don't get around to each one as often as once a year, because you are not able to? A. We have not got the help; we cannot cover the ground and go into detail.

Q. Do you have to make up your own reports? A. Yes, sir.

Q. So that after you do your inspecting you have to write your report? You have no clerical help? A. No, sir.

Q. Do you then take these cards at random, or do you arrange them in some order? A. We will have the cards from the central city or town, and we will work in the factories around in that district so that we won't spend any more time than we have to, traveling from one factory to another.

Q. What do you do when you go to a factory? A. Well, my system of making an inspection is to go to the office; I get somebody who is in charge of the factory. When I go there I ask for the firm.

Q. Do you notify them in advance of your coming? A. No, sir, never.

Q. It has been testified here that the factory owners knew in advance when the building was going to be inspected by the factory inspector. A. Yes, sir.

Q. How do you account for that? A. I cannot account for it; I don't know anything about it. That is all I can say. I don't know anything about it.

Q. I am only telling you that it has been testified to here. A. Yes.

Q. But they do not get any notice from you that you are coming, in advance? A. They certainly do not.

Q. Then you go to see the owner first? A. I got hold of somebody there to assume charge of the factory.

Q. Somebody in the office? A. Yes.

Q. And then what do you do with him? A. I get him to assume the position that he is in charge of the factory. I say to him, "You are in charge of the factory," and secure the statistics in the way of the number of employees, record of accidents, number of children employed, number of minors employed, and whether it is incorporated or not; whether it is a copartnership or whether it is a corporation. I tell him I would like to go through the factory. He usually goes with me or turns me over to the foreman or some man that will assume charge of a certain department. I go through the factory and look over the conditions taken care of by the factory laws, such as guarding machinery, guarding elevators.

Q. Do you examine at all with reference to safety in case of fire? A. Yes, sir.

Q. You look over the fire-escape? A. Yes, sir, the arrangement of the stairs and so forth. Exits.

Q. Now, did you ever first inspect the building before you saw the owner or the proprietor or the man that is in charge? A. Sometimes.

Q. How long does it take you to get the statistical information from him? A. Well, it depends somewhat on the factory; I wait anywhere from ten or fifteen or twenty minutes to see the man who will assume charge of the factory. That will all depend.

Q. And then it sometimes takes you half an hour to get the statistical information? A. Yes, sir.

Q. And then you walk through the factory with the man himself, or somebody he deposes to go with you? A. Yes.

Q. Don't you think you would get better results if you went through the factory unknown to the owner? A. Under certain conditions I might.

Q. What conditions? A. Sometimes it is advisable to have a man in charge of the factory with you in case there is a violation; it makes a stronger case, because the violation is brought before him personally.

Q. Is that the only case you refer to where it would be better to have him with you? A. No. In the way of guarding of machinery, placing fire-escapes, guarding of elevators, safety appliances on elevators, which can be much better explained if the man is right with you, and saves you the trouble of writing from Albany from the head office, changing these conditions.

Q. That is to say, it is better to have the man with you after you discover certain violations of the law or certain things that ought to be improved? A. That is my purpose in trying to have him with me.

Q. But, as far as cleanliness is concerned, would it not be far better for you to go alone and find these things out for yourself? A. No, I want to show them to him.

Q. Isn't it time enough after you find the condition to take the man up and show it to him? A. Yes, but it takes more time.

Q. You think it takes more time? A. Yes.

Q. Haven't you ever known it to be a fact, while you were desirous of talking to the man and getting this statistical information, that the place was cleaned up? A. It may have been, I am not in a position to say.

Q. Well, that would all have been avoided if you had gone through the factory first? A. I told you I had, in some cases.

Q. Now, how long would it take you to go through a six-story building used for factory purposes? A. It all depends on the number of violations I found there.

Q. Did you ever inspect the Buffalo Forge Works, 490 Broadway, this city? A. Yes.

Q. When? A. I think it was some time this spring, I cannot tell you exactly without referring to my record.

Q. Did you find it absolutely safe for employees in case of fire?

A. No, I do not think any factory building is absolutely safe.

Q. Well, I will put it this way — did you report any violations against it, any violations of law through the department? A. In reference to what?

Q. Anything in that building? A. Yes.

Q. What? A. The arrangement of doors to the elevators, I remember one in particular.

Q. Are there any elevators in that building? A. Yes, sir.

Q. Did you report that there were no fire-escapes on the exterior? A. No, I did not.

Q. Did you find any? A. There are means of getting out of the buildings. What kind of fire-escapes did you refer to?

Q. I mean outside iron, metal fire-escapes, or any kind of outside fire-escapes? A. I could not tell you without referring to my record.

Q. Well, there ought to be outside fire-escapes on a six-story building with so many employees, ought there not? A. Depending on the stairs, the condition of the exits or staircases.

Q. In that building how many stairways are there? A. There are a number, I believe. In what building?

Q. I mean in the one six-story building used on the ground floor as a foundry. A. I do not recollect any such building.

Q. Well, there is one six-story building, which is next to the pattern shop, perhaps you call it by some other name, and connected with the pattern shop by a wooden bridge. Do you remember that building? A. I think that is where the machine work is done.

Q. All right, we will call it the machine building. How many staircases are there in that? A. I think two, as I remember it; I could not tell you positively.

Q. It has been testified to here as one. A. Yes.

Q. You remember it is a wooden staircase? A. Yes, sir.

Q. It has been testified here that the only means of exit is by a door on the level with the ground which goes into an alley which is all closed up, and it leads to another building, and that there is a wooden bridge which goes to the pattern house, and two other wooden bridges which go into the pattern house to another building? A. Yes.

Q. Did you pass that as a building which ought to be continued in use for factory purposes? A. The exit occurs over the bridge here, not as a fire-escape to the other building.

Q. Well, have you considered the fact that it is wooden, and is liable to burn? A. Yes, I have.

Q. How would these people get out if it was burning? A. They would go down the stairways inside.

Q. The stairways are wooden, too, aren't they? A. Yes, but it is not very probable that this wooden structure from one building to the other would be afire the same time the other building was.

Q. The stairways and the wooden bridges are all on one side of the buildings? A. Yes.

Q. The same as the staircase on the inside? A. Yes.

Q. The stairway leads the same way. Now, if the fire was on that side of the building it would take away the staircase and take away the wooden bridges at the same time? A. Might and might not.

Q. And the men in there, if a fire took place, would be caught like rats in a trap? A. Assuming the conditions there.

Q. Well, if they are as I have described them to you, wouldn't you say that? A. Well, it appears to be so.

Q. Are you familiar with the Jewett building, in this city? A. On what street?

Q. Don't you know where it is? A. There are different Jewett buildings.

Q. Don't you remember — off Division. A. The Caxton.

Q. The Jewett-Caxton building? A. I think I have never inspected that.

Q. Do you know whether Mr. Wilson did? A. I could not say; I am not sure.

Q. Well, why have you never inspected it? A. Because I never happened to be in that particular district working. You see, there are other temporary factory inspectors sent in here from the outside.

Q. There are, from time to time? A. Yes, sir.

Q. How are they designated to come here, under what system? A. I am not in a position to say. I suppose by the head of the department.

Q. Well, are they sent in here to help you out or to make inspections of particular buildings? A. To help Mr. Wilson and myself out; the district is so large we can not cover it.

Q. When these men come here, do you assign them to certain buildings? A. I do not assign them.

Q. Does Mr. Wilson do it? A. I cannot say.

Q. Do they help you or help him? A. No, it comes from him.

Q. Is he your senior? A. He is the senior inspector in this district; he has been here longer.

Q. Now, did you inspect the toilets and sanitary arrangements in these factories? A. I did.

Q. And did you find them clean or dirty? A. Some of them clean and some of them very dirty.

Q. What do you do when they are dirty? A. Place a recommendation with my report.

Q. You have no summary power to order them cleaned, have you? A. I simply recommend they be cleaned; it goes into my report and comes back to the manufacturer from the Department.

Q. Let us see how that is done. You report to the Board at Albany that you found a filthy toilet at such and such a place? A. Yes, sir.

Q. And that report from you goes in how long after you have discovered it, a week or so? A. It goes in the same day.

Q. You mail your report the very same day you make the inspection? A. As a rule.

Q. Or the next day? A. As a rule.

Q. Either that day or the next? A. Yes.

Q. And how long does it take before that is acted upon by the Department of Labor? A. Well, occasionally it is a week or two, two or three weeks, sometimes less time.

Q. And the filthy condition lasts during those two or three weeks until the man gets the order? A. Unless the manufacturer takes it into his head to clean it up immediately.

Q. Of his own volition? A. Yes.

Q. I do not suppose he does that very often? A. Well, some manufacturers want to have things right.

Q. Yes, I suppose there are some that are willing to do it. Now, even after he gets an order from the Department to clean

up, if he does not do it, what do you do next? Do you go back to see if it is done? A. There is a carbon copy of my recommendation sent to him. The original copy goes to the manufacturer, and the carbon copy comes back to me. I go back on what I call a "compliance," to see whether it is attended to or not.

Q. How long afterwards do you go back, after you get this carbon copy? A. Just as soon as I get this compliance I go back.

Q. That may be a week or a month? A. Yes.

Q. And during that whole time the condition of the place remains the same as it was when you first found it? A. It may or it may not.

Q. Yes, it may not. And when you discover that the condition has not been complied with on your return visit, what do you do then? A. Well, if they give me a good reasonable excuse, I recommend that the time be extended. If they cannot give me any reasonable excuse why the work has not been done, I recommend a final order.

Q. In the case of this Buffalo Forge Works, did you ever go back there to see whether or not any order that had been made by the Department had been complied with? A. Yes, sir.

Q. How many times did you go back, once or more than once?

A. I think I have been there once or twice.

Q. Do you remember what orders the Department made there? A. I do not know as I can remember all of that. One of them was to provide an exhaust system on their grinding wheels, which of course took some time.

Q. Did you ever give them any order about toilets? A. No; at the time I was there the number of toilets were in accordance with my orders. You mean the sanitary conditions?

Q. Yes, cleanliness? A. They were fairly good at the time I was there.

Q. How many hours a day do you work, on the actual inspection? A. Well, that all depends on where I have to go. Now, take yesterday — Friday and Saturday I had to go to Batavia and Lockport, which, of course, puts considerable time going around and looking for plants.

Q. For instance, you live in Buffalo, yourself? A. Yes, sir.

Q. What time do you start out in the morning? A. Well, between eight and nine o'clock.

Q. What time do you stop inspecting? A. Sometimes I stop inspecting about between two and three o'clock; sometimes I work until six o'clock

Q. You have to knock off in order to do the clerical work that is required? A. Yes.

Q. Is it a fact, Mr. Mackenzie, that because of the clerical work that you have to do, you are only able to actually inspect about three hours a day on the average, and traveling to and fro?

A. Well, that would depend on how that was brought to me.

Q. How many factories can you inspect in a week, in Buffalo, for instance? A. Well, in certain sized factories, I might be able to inspect eight or ten factories; in another time it would take me a day to go through two factories. It depends on the amount of work to be done in that factory.

Q. How many factories are there in Buffalo altogether that you have reference to? A. I could not tell you. I have none registered myself.

Q. How many in Mr. Wilson's card register? A. I could not tell you.

Q. Several thousands? A. I expect there are.

Q. Have you any plan by which these factories are inspected according to the purpose for which they are used, or the character of the building? A. Well, of course, this law applies to a different kind of factory building.

Q. I understand that. A. We have to go according to the laws that we have.

Q. Have you ever inspected any candy factories? A. Yes, sir.

Q. Did you ever inspect the Nation Candy Factory? A. I don't recollect.

Q. Have you found the candy factories you inspected in good order and in good condition? A. They were not good; I placed orders on some of them.

Q. Some of them very dirty? A. Some of them, once in a while. Pretty dirty floors, and once in a while, dirty walls; especially before holiday time.

Q. Do you believe that you should have power to order summary improvements to be made in the factory? For instance, if the inspector finds there are filthy toilets in a manufacturing

establishment, do you think he ought to have power to order the place cleaned, and if it is not complied with within twenty-four hours, to close the place? I think that is a very good idea. You mean, to have the entire discretion left to the inspector in such a case?

Q. You have not found any factory, for instance, that is unspeakably dirty, you say? A. Yes.

Q. That is a common thing to find where they had not been cleaned for weeks; now, if such a condition as that existed, you have no authority at all except to ask the manufacturer or proprietor to clean it? A. Simply make a recommendation.

Q. And then if he does not choose to do it, all you can do is to make a recommendation and it may be six weeks before you know about it? A. Very true.

Q. Now, in such a case as that, do you think you could get better results if you had power to say to the manufacturer: "I want this cleaned up and if you do not do it I will close up the place?" A. Yes, I would like to see those conditions taken care of immediately.

Q. You find that the inspections you make are unsatisfactory, because you cannot make them fast enough? A. Yes, sir.

Q. How often do you think you ought to inspect a factory? A. There are some factories we ought to make inspections of once in two or three years and there are some we ought to make them once a month or every few days.

Q. Some you ought to make them once a week? A. Yes, sir.

Q. You mean by that, they need to be made oftener in a place where the manufacturer is careless about it? A. There are people that really do not know what cleanliness means, and you have to go down there perhaps once a week to tell them what cleanliness is.

Mr. ELKUS: Any questions by the Commissioners?

The VICE-CHAIRMAN: Speaking about ——

Mr. ELKUS: May I interrupt you, Mr. Chairman?

By Mr. ELKUS:

Q. What were you doing before you were an inspector? A. Chief engineer.

Q. In what? A. I ran a plant in Ellicott Square, Hotel, Brazil; I was in the city service seven or eight years.

Q. How much is your salary, Mr. McKenzie? A. \$1,200.

The VICE-CHAIRMAN: You were speaking about your return to see whether the order you gave on the carbon copy was carried out, and you said if there was a reasonable excuse you would give them more time? A. Yes.

The VICE-CHAIRMAN: That does not apply to an uncleanly condition of the factory? A. Not particularly sanitary conditions; that is more for fire-escapes, etc.

The VICE-CHAIRMAN: You said before you were factory inspector, you were a mercantile inspector in the same Department.

The WITNESS: Yes.

The VICE-CHAIRMAN: How long were you a mercantile inspector?

The WITNESS: Two years.

The VICE-CHAIRMAN: Two years a factory inspector?

The WITNESS: One year a factory inspector.

The VICE-CHAIRMAN: Is it a promotion to go from mercantile inspector to factory inspector, or is it simply a change of title?

The WITNESS: Well, I considered it a promotion in my case for the reason I always followed up mechanical and electrical work, and I was selected from the factory eligible list, consequently I was eligible to the Factory Bureau.

The VICE-CHAIRMAN: Now, let's get that straight. When you were originally appointed as a mercantile inspector, you were taken from the list of factory inspectors?

The WITNESS: Yes.

The VICE-CHAIRMAN: Was there any reason given for that at the time?

The WITNESS: I think there were no eligible lists of the mercantile inspectors.

The VICE-CHAIRMAN: And notwithstanding you had qualified in the examination as factory inspector, you received your appointment to inspect mercantile establishments?

The WITNESS: Yes, sir.

The VICE-CHAIRMAN: And for that reason you were appointed mercantile inspector although you were eligible for the position of factory inspector, is that right?

The WITNESS: Well, for the man that is considered capable of being factory inspector, I think the mercantile end of it is easy.

The VICE-CHAIRMAN: I know, but wouldn't the rule work the other way?

The WITNESS: No.

The VICE-CHAIRMAN: So far as the Civil Service Commission is concerned?

The WITNESS: Well, I do not know, but the man that is capable of going in and inspecting factories and reporting so many different conditions and so many laws, and there being so few laws in the Mercantile Bureau as compared with the Factory Bureau —

The VICE-CHAIRMAN: Do you remember what percentage out of the 100, or whatever the percentage is, you received in your first examination for experience?

The WITNESS: No, I do not remember that.

The VICE-CHAIRMAN: You do not know the relative rate of the different subjects?

The WITNESS: No.

Commissioner DREIER: How many inspectors do you think would be necessary to have in Buffalo to properly inspect all the factories?

The WITNESS: Now, under the present laws?

Commissioner DREIER: Yes.

The WITNESS: Well, at least three covering this territory, covering four counties —

Commissioner DREIER: It has been very inadequate?

The WITNESS: We have been able to make some inspection, not the detailed inspection we would like to make; it is not as we would like it. I am not in a position to say, not knowing the exact number of factories in the city of Buffalo, but if I knew the exact number of factories I could apportion it.

Commissioner DREIER: Can you give us any idea about how many would be necessary to cover this territory you now cover? I mean by that, how many it would take to cover this district satisfactorily?

The WITNESS: Well, possibly under the existing laws perhaps three or four.

Commissioner DREIER: More?

The WITNESS: No.

Commissioner DREIER: Altogether?

The WITNESS: Altogether — four. I am giving the best judgment I am in a position to give.

The VICE-CHAIRMAN: Would you be in favor of four?

The WITNESS: Yes.

The VICE-CHAIRMAN: Do you remember ever inspecting any place in the city of Buffalo where the toilet was in the middle of the room?

The WITNESS: No, I did not.

By Mr. ELKUS:

Q. Where it is not even enclosed except by a rail and open to everybody's view? A. No.

Q. Well, it has been testified to here, there were such toilets in a factory. Of course, you would not permit that, would you? A. No, I certainly would not.

Q. Could there be such a one, and you or Mr. Wilson not know? A. There are factories, perhaps, that we have no line on or do not know about; no way of getting a line on.

Q. This is a large factory, it has been testified to here, and it has been in existence for years. A. I could not say as to that. I would not permit the condition myself.

Q. Do you inspect belting in a factory? A. Yes.

Q. Do you inspect it to see whether or not anything protrudes from the belt which is liable to injure a workman? A. Yes, sir.

Q. There have been many accidents caused by improper lacing of the belting, I think that is what it is called, isn't it? A. Yes, sir.

Q. Are you mechanic enough yourself to sufficiently understand what is a defective belt? A. I think so in my own opinion.

Q. Now, take a piece of belting like the one I now show you (handing a piece of belting to the witness). That is a very great danger, isn't it, to have that project in that way (indicating)? A. Yes, sir; very bad.

Q. Very bad? That is liable to cause a very serious accident? A. Yes, sir.

Q. Well now, how closely do you have to inspect belting to find out if it is manufactured properly—what do you call that lacing or splicing? A. Lacing or splicing.

Q. That has to be laced with leather? A. Yes.

Q. That is the best kind? A. No, in all cases this is considered a simpler joint, a smoother joint on a fast-running machine.

Q. So do you go to a factory and look at the belting while the machinery is running? A. Sometimes, and sometimes not.

Q. Do you ever have to stop the machinery in cases in order to make an examination of the belts, to see if anything like that might happen? A. No, sir.

Q. How could you find out in a factory where the machinery is going rapidly and the belts are revolving rapidly, whether or not such a thing as this is there, a projecting piece of steel which might fly off and cause a most severe accident to an employee? A. How would I find that?

Q. Yes, unless you stopped the machinery? A. Could lay a little board or a broom stick or anything I could find on the belt and find if anything projects.

Q. Do you do that? A. I do in cases where I notice anything of that kind.

Q. This piece of belting would be revolving, I suppose, hundreds of revolutions a minute, wouldn't it? A. Yes, sir.

Q. Could you see it as you walked round? A. Might; depends on the size; perhaps I would not such a small piece as that.

Q. Is there any way of properly testing a belt to find out if any such thing exists unless you stop the machinery and look at it carefully? A. Yes, sir.

Q. What? A. By placing anything on there.

Q. I know, but you have got to see it first; you do not go and take a piece of board and run the board over every piece of belting, do you? A. That is very simple; you hold it on and the belting runs across it, merely touch it as it runs along.

Q. But you do not test it that way, you do not put a board on every piece of belting, do you, in the entire factory? You walk around and see if there is anything wrong? A. Exactly.

Q. And if you do not find something wrong about it you do not test it? A. No.

Q. And, of course, it may escape you? A. Certainly.

Q. Now, you take a piece like this (handing another section of belting to the witness). That is the result of the machinery

catching some man isn't it, that is what has caused it? A. It may be.

Q. That may have torn his arm to pieces? A. Yes, sir.

Q. And, of course, if you stopped the machinery and carefully examined the belting you would not find the condition that led to the accident? A. I might, yes, sir.

Q. But, I suppose, you would not have time to do that? A. Would not if we went into detail, because we might not have time to cover the ground without going into those details let alone going into anything else.

Q. Have you ever been in the Farrer & Treft building? A. Yes, sir.

Q. When? A. Sometime last winter, about a year ago.

Q. Did you find anything there to make any complaint about? A. Yes, sir.

Q. What? A. There were set screws and gears.

Q. Anything else? A. There was repairs on some stairways there; that is all I remember.

Q. Did you find anything the matter with the toilets? A. Yes, I remember I placed an order for white washing or painting the toilets.

Q. Did they do it? A. Yes, sir.

Q. That is the place, Mr. McKenzie, where the inspectors said within the past week that the toilets are in the middle of the room without any enclosure except a rail. Did that exist when you were there? If that existed when you were there you certainly saw it, didn't you? A. No, sir, I did not see it.

Q. I say if it was there when you were there you would have seen it? A. I probably would have.

Q. You say probably, what do you mean by that? You mean to say you would not have seen it if it were there? A. I might not have seen it.

Q. How is that? A. I inspected, in that place, everything.

Q. You mean to say, that if you walked into the place and in the middle of a large floor there was a toilet which was not only filthy, but which was not surrounded or fenced in by any partition, you could not have seen it by an ordinary inspection? A. In all probability I would have seen it.

Q. If you had seen it you would have reported it immediately to Albany? A. Certainly.

Q. So if it was there when you were last inspecting the place, you did not see it, that is a fact, isn't it? A. That is the sum and substance of it.

Q. How can you account to the Commission for the fact you did not see it? A. I did not see it.

Q. Have you ever made any inspection in this city of the printing offices? A. Yes, sir.

Q. Have you ever found any bad conditions as to toilets? A. Yes, sir.

Q. Can you remember where you found that? A. No, I do not remember any particularly.

Q. Were they all remedied? A. They were taken care of at the time.

Q. They do not exist to-day, is that a fact? A. I cannot tell you if it exists to-day.

Q. Can you tell us when you last inspected the printing offices? A. Not without referring to my records. You mean in this city?

Q. I mean in this city. A. No, sir, most of my work is out in the larger factories rather than in the printing offices.

Q. Now, the larger factories are usually pretty decent, aren't they? A. They are.

Q. They do not need nearly as much inspection as the smaller ones? A. Well, as a rule — the smaller ones do not keep their places quite so nice as some of the large ones.

Q. As the large ones? A. On the other hand, in the large factories they have a separate department to look after those particular things, including ways of guarding machinery and looking after dangerous conditions.

Q. And still you spend most of your time in the larger factories? A. Most of my time, yes, sir.

Mr. ELKUS: Does the Commission wish anything further?

The VICE-CHAIRMAN: During the year you have been a factory inspector have you ever had occasion to bring the manager or proprietor of any factory into court?

The WITNESS: Yes, sir.

The VICE-CHAIRMAN: Did you find that the Judges co-operate with the Department of Labor, as a general rule?

The WITNESS: I have received very few fines; I have hardly ever taken a case to court where I obtained a conviction.

The VICE-CHAIRMAN: What followed, a suspension of sentence?

The WITNESS: A suspension of sentence.

By Mr. ELKUS:

Q. How many cases have you ever taken to court? A. In the two Departments, you mean?

Q. In this city. A. Approximately forty, forty-five or fifty.

Q. What are they for, violations of the Child Labor Law, mostly? A. Principally.

Q. That is where you find they are employing minors under the age of fourteen? A. Under sixteen and fourteen.

Q. Under fourteen without papers? A. Employment of minors between sixteen and fourteen.

Q. Were there any cases other than those you took to court, minor cases or children's cases? A. Very few.

Q. That is the only kind of case?

The VICE-CHAIRMAN: It was testified to here to-day, that in a certain factory in Buffalo, the management sent the children out in the park while the inspection was going on. Did you ever hear of such a thing as that?

The WITNESS: No, except what I read in the paper. I have heard of such conditions as that.

The VICE-CHAIRMAN: You have heard?

The WITNESS: Yes.

By Mr. ELKUS:

Q. Did you hear of putting them in the elevator and putting them between two floors while you were doing inspecting? A. I have heard those things talked over.

The VICE-CHAIRMAN: Well, from the present system of inspecting, inasmuch as it seems to be the rule to allow the inspector to go first to the management and notify them that they are on the job for the purpose of inspection, isn't it entirely possible? Could not these children all be carried to the park in that way when you are getting the statistical information before the actual inspection has begun?

The WITNESS: If I think there is a violation at all of the Labor Law, or if there are a number of children employed there, I do not always give them a chance.

Q. I know, but your going up to a factory for the first time is what I mean. I want to know by what process of reasoning you are going to know what is going on there?

The WITNESS: I consider the number of children and minors employed there.

The VICE-CHAIRMAN: But you are only just going there for the first time, you do not know anything about that?

The WITNESS: It is quite possible for them to have children in the place.

By Mr. ELKUS:

Q. Mr. McKenzie, aren't you playing right into their hands, when you go down to the place and interview the head of the firm and tell him you wish to go through the factory? A. Yes, I suppose I am.

Mr. ELKUS: Thank you, Mr. McKenzie.

The VICE-CHAIRMAN: Then the Commission stands adjourned until to-morrow morning at ten o'clock in Rochester.

MINUTES OF THE HEARING OF THE NEW YORK STATE FACTORY INVESTIGATING COMMISSION, HELD IN ROCHESTER, AT THE CITY HALL AT 10.30 A. M.

November 28th, 1911.

Present:

Senator ROBERT F. WAGNER.
Senator CHARLES M. HAMILTON.
Assemblyman ALFRED E. SMITH,
Assemblyman C. W. PHILLIPS,
Assemblyman EDWARD D. JACKSON.
Miss MARY E. DREIER.

Appearances:

ABRAM I. ELKUS, Esq., *Counsel to the Commission,*
BERNARD L. SHIENTAG, Esq., *of Counsel.*

The Commission met pursuant to adjournment, with Assemblyman Phillips in the Chair.

Commissioner PHILLIPS: The meeting of the Commission will come to order. Some of the Commissioners are on their way here from the session in Buffalo which lasted until between ten and eleven o'clock last night. I will outline briefly, the purposes of this Commission.

The Commission was created by the Legislature to investigate conditions in factories. It arose out of a fire in New York city in which about 150 young women were burned. Mr. Elkus, our counsel, will explain to you more in detail the purposes and work of the Commission.

I believe, from what I have seen in going through the State, that in the city of Rochester the manufacturing conditions are much better than in any other place that we have been in. There are some bad conditions here, and there are some places and some manufactories which are leading the procession so far ahead that they are dragging the other people with them.

The only thing that I regret at present, is that there are not more manufacturers at this meeting. I think the manufacturers as well as the working men must commence to realize that there are public discussions going on, that there are things being considered in which they are vitally interested, and it happens quite frequently that they ignore these discussions and inquiries until the time for legislative action arrives, and then they are surprised at the action of the Legislature and the fact that they have not been consulted in its consideration. But men of greater foresight are commencing to anticipate these improvements in our industrial conditions, and our means of living, and our helping to make laws governing them. As I say, I hope every manufacturer will come in here and tell us what they are doing in their factories, because many of them in Rochester are doing good work, and they ought to be here to tell what they are doing, so as to help the fellows who are not doing such good work, and help them to find out what ought to be done.

(At this point Hon. Hiram H. Edgerton, the Mayor of the city of Rochester arrived, and was introduced by Commissioner Phillips.)

MAYOR EDGERTON: There is a prevailing idea among our citizens that there is nothing that is too good for us, and that is the reason why I am here this morning, to bid you welcome. We welcome any investigation that will improve the condition of any class of our citizens. If there is anything to be improved, and I have no doubt there are some things that needs improvement, we trust that you will find them out and make such suggestions as you may deem necessary. I am strongly of the opinion that you will find that conditions here are as good as they are anywhere.

We have such a varied line of manufacturing industries here, dependent upon no particular industry, and our manufactories are of such a nature that they require almost entirely skilled help, and that makes a very much higher class of citizenship here than you will find in many of the cities.

We trust that your deliberations here will be of benefit to Rochester and to the whole State. Again I bid you welcome.

Commissioner PHILLIPS: Mr. Elkus.

MR. ELKUS: Mr. Chairman, Mr. Mayor and ladies and gentlemen: On behalf of the Commission, and the investigators of the Commission, I wish to express our thanks in the first place, for the very hearty welcome offered and the words of appreciation which we have received from your Mayor, and furthermore, to express our thanks for the efficient aid and co-operation and interest which has been shown by all of the city officials of Rochester, and also by its Chamber of Commerce, and its leading public citizens.

The Commission is also indebted for what it has done and accomplished thus far, in part to the very efficient aid of its member, your fellow townsman, Mr. Phillips.

This Commission was established by the Legislature, as the Chairman has said, for the purpose of investigating the conditions under which men, women and children work in the manufactories of the State. It was brought into existence because of a great catastrophe in New York city, a catastrophe causing the loss of the lives of over one hundred and forty people. That was a single accident caused by fire whereby these people lost their lives because there were insufficient or no fire-escapes and because of the conditions surrounding that building.

There are in this State, nearly a million men, women and children who work in factories, and the total value of manufactured articles runs far up into the millions and hundreds of millions.

While the loss of life by fire, of course, should be prevented, while it is the duty of this Commission, and it intends to do its work in that regard, to recommend to the Legislature such means and such measures as will prevent loss of life by fire, it is charged with a higher duty, and a greater duty, and that is to see that human life is preserved and lengthened—the lives of the workers in the factory. While we have these horrible accidents where people lose their lives by accident or by fire, they are to be deplored and to be remedied, yet, what is far worse, is the daily grinding out of life in many of the factories of the State, because of conditions under which men and women work, unsanitary, unclean,

bad lighting, and no ventilation at all. Worst of all, perhaps, is what is called "speeding up," the requirements of modern industries being so great that the employer is compelled very often, to urge on his employees to such speed in their work, that the employees' faculties become impaired; very often their sight is very badly injured, and their health is very seriously affected and their lives are very much shortened.

The daily incidents in a factory, by way of accident — by way of deterioration of life, by way of sickness, and loss of life — are much greater in the end than the terrible cost of a fire which sweeps away, at one fell blow, 150 persons.

Every day someone's life is ended or shortened. Every day marks the beginning of some disease in the life of a worker, which brings his life or her life to a quicker end. This is a serious proposition, because if we are going to destroy the health and lives of the workers in factories, we do a great injury to posterity, we bring about a condition which affects unborn thousands. This was called to my attention very strongly by one of our Commissioners in a comparison which she made between the appearance of the women who were employed in factories in England, and the women who were employed in our factories here. There, the women are dried up; they have got no more life in them. Here, they are still full of life and action, and the cause is this, that over in England they are the grandchildren and great-grandchildren of those who had worked in factories all their lives, and the results were shown by their appearance, their anemic looks, their dejected manner and by lack of life and interest in life, and lack of ambition, while here, because they are only beginners in factory work, they still had the health which came to them from working on the farm and from healthy parents. If we are not to sink to the same level, the same conditions that exist in those other countries, if we do not take some means and some measures now, to change conditions in many of the factories which exist, the same situation will ultimately obtain here.

We are glad to know, and in some measure to verify the good conditions that your Mayor expects at Rochester. You have many new, modern factories; they are properly lighted, they have proper sanitary conveniences. They have proper arrangements in case

of fire, and they are to be much praised. But there are some cases which we may have to call attention to, which, with this spirit of progressiveness which evidently actuates the city of Rochester, I have no doubt will be taken in the spirit in which they are given, and will be heeded.

The State of New York expends annually, millions of dollars to preserve its forests, to keep and improve its great water supply, and it spends hundreds of thousands of dollars in teaching farmers, how they may develop and improve the farming lands in the State. Now has come the turn of human life.

This Commission is engaged in laying the pathway, that the State may step in hereafter in proper form and in due order, to do a higher and a greater thing than saving the forests, than preserving the water supply, than educating the farmer so that the soil may be more productive. We are engaged in conservation of human life.

Mr. Chairman, I believe I have outlined, in these few words, what the purposes of the Commission are.

We regret that we are unable, at this time, to remain in Rochester but a day, but the Commission expects to have three sessions, in the morning, in the afternoon and in the evening. While we have invited, specifically, a number of gentlemen interested in this work, and your city officials, to come here and give their testimony, on behalf of the Commission I extend a most cordial invitation to every one interested, or who may have any suggestions to make, to come here and make them, and I especially invite two classes of people. We want the working men and the working women to come here without fear, and with the fullest confidence that they will receive every consideration to give their views and their testimony. We want the manufacturers to come, owners of buildings and proprietors of buildings to come and give their views and their testimony.

Although but a short time in existence, this Commission indirectly has accomplished many things. In one Department of the State, where there had been forty-one inspections up to a month ago, during the month the Commission has been at work, there have been four hundred inspections of buildings and factories.

But what we want is not inspections on the part of one Department or the other, because we have pointed out certain evils. The Commission desires a steady improvement in factory conditions, in the lives of working men, improvements that will continue and will last for all time.

ALBERT E. EASTWOOD, called as a witness, being duly sworn, was examined and testified as follows:

By Mr. ELKUS:

Q. Mr. Eastwood, will you kindly give us your full name and residence? A. Albert B. Eastwood.

Q. Residence? A. 262 Culver road, Rochester, New York.

Q. What is your business or profession? A. My business is a merchant, retail shoe merchant.

Q. In this city? A. Yes.

Q. And you are president of the Chamber of Commerce of the city? A. I am.

Q. How many members has the Chamber of Commerce? A. About eight hundred.

Q. What are its principles and aims? A. To promote the commercial interests of the city.

Q. And is your body interested in the subject, both of fire prevention in factories and safety methods in case of fire in factories? A. It has been our chief endeavor this year.

Q. And have you had an investigation made under the direction of the Chamber, into the methods employed or which may be employed to conserve life in case of fire and to prevent fire? A. We have not. That is the function of one of our municipal Departments.

Q. What action has your Chamber taken with reference to the subject of fire prevention and proper fire-escape facilities? A. We have compiled two booklets, one on fire prevention and the other on individual fire fighting. Our object was to put before the people, the layman's point of view. The National Association of Fire Prevention has been laboring for a great many years to bring this subject to the men in the factory and store, and the home, and it occurred to us that if the point of view of the layman could

be put before his associates, in just that slant or view, that it might appeal to him differently, that he might take a new interest in the subject and might go into it more fully, than when an expert explained to him any technical question in technical language of the needs of fire prevention and so forth.

Q. Your idea, as I understand it, was to present the matter from the common sense standpoint, and to show it was a money-saving project? A. That was the idea exactly. We knew that fifty percent of all the fires that occur are easily preventable. We knew that the annual loss in the country is two hundred and fifty million dollars of preventable fires. We simply put it up to the Chamber of Commerce and to all the city at the same time, that there was an annual loss of some four hundred thousand dollars of absolutely preventable fires.

Q. You think your annual loss is preventable? A. Our annual loss is eight hundred thousand dollars; the statistics we obtained through the Commissioner of Public Safety.

Q. What conditions did your body find existing in the factories and establishments in this city, with reference to fire-escapes and prevention in case of fire? A. We made no survey of the situation. No effort at inspection. We simply called in the representatives of the various lines of endeavor, manufacturers, wholesale dealers, retailers, and solicited their co-operation and got from them voluntary testimony that enabled us to cover the point.

Q. What did you find from this voluntary testimony? A. We found that a great many intelligent men, men who had every earnest desire to avoid fire, had left uncovered points of very serious hazard, through indifference or ignorance.

Q. Let me direct your mind to two or three specific things. Did you find in any of the factories that you were informed about, that there were fire drills? A. Yes.

Q. That is, drills of employees in case of fire? A. Oh, yes.

Q. You found that that was being done in some buildings? A. Yes. sir.

Q. Did you find any fire-alarm systems, that is, to notify all the employees there was a fire, by an automatic alarm? A. Oh, Yes.

Q. Have you succeeded by what you have done in getting other factories to install fire-drill and fire-alarm systems ? A. I believe that we have.

Q. In the city of Rochester are there many factories which have automatic sprinklers? A. Yes.

Q. Have those increased since you began your campaign? A. We have no statistical information. Isolated cases have come to my personal attention of men who have installed or started to install them.

Q. What suggestions, if any, would you make to the Commission, with reference to remedial legislation to provide fire protection and also to assist in saving life in case of fire? A. In this letter (indicating) which has come to me, the question is asked, "Should the automatic sprinklers be required in all factories and manufacturing establishments, and should such mandatory requirement depend upon the nature of the industry and the number of people employed in it?" I presume that the expediency of the case might modify the action at times, but we speedily discovered that all fires are of the same size at the start, and for that reason the small fire and the small factory has just as great potential hazard as big fires in big factories; the conditions are there.

Q. Would you recommend that all factories be registered? A. Just what do you mean?

Q. In the first place, that every factory should be required to file with some local authority or with a State authority, the name of the factory proprietor, the kind of business he carries on, so that the State or city might have some method of finding out how many factories and what factories there were and where they were located in the State? A. I think that would be desirable.

Q. Would you be in favor of having all manufacturing establishments licensed by some authority before they can begin business? Before you answer that, let me point out some facts to you. At the present time, of course, anybody may begin manufacturing, anywhere, in any kind of a building, and it depends purely upon the good luck of some inspector to find out where this factory is located, and he may not reach it under the present system for a year. He may never find it in some of the larger cities; so

it has been suggested to the Commission that every manufacturing establishment ought to be licensed by some authority. They obtain this license before they are allowed to start in business, after an inspection of the factory plant to see whether or not they have complied with the law in matters of fire-escapes. in matters of exits, in matters of sanitation, in matters of arrangement of machinery. A. I should think that would be a most excellent plan to put into operation, if you didn't make it arbitrarily necessary for that plant to remain idle until the inspection was made.

Q. No, it would simply operate this way: In most of the cities, before a building can be occupied by more than three tenants, you have got to get a certificate from some department that the building is properly built. Now, that doesn't delay the filling up of that building by tenants, and the same thing could be done with the factory. We all agree if it is going to be done it ought to be done in such a way that it ought not to work the slightest hardship on the factory owner. A. Your thought in connection with the license is simply to have a record?

Q. Have a record and an inspection and following that up; would you be in favor, if there was a license, of it being renewed at some certain period, say every two years or year after an inspection, so as to see that the regulations were kept up? A. I should be in favor of such license as you outline it.

Q. Have you any suggestions to make as to what methods should be adopted by the State, by legislation, to secure any further adequate means of putting out fires or saving life in case of fire, other than you have recommended in your pamphlet?

A. We believe that the automatic sprinkler is so far the most efficient means.

Q. Would you require an automatic sprinkler in all factory buildings, or only those over a certain height? A. Why, I personally feel that they ought to be in every building that contains material that can burn to any great extent.

Q. How much do they charge for your sprinkler head here? A. I couldn't answer that question, but we have had the proposition put up to us in concerns with which I am interested and familiar, that they will install such an equipment and take their

payment for it within five years, with the saving of an insurance premium.

Q. But you are paying for it indirectly? A. Yes, but —

Q. It is testified before the Commission and it is the fact that the insurance companies will not allow any rebate on insurance premiums, unless certain sprinkler heads are used, of which they approve. You are familiar with that. Thus it is claimed that there are other sprinkler heads which are just as effective and which are just as good and which you can have installed for one-half the price of those which are approved by the insurance companies. Are you familiar with those facts? A. No, I am not, but with my experience with the Underwriters Laboratories and the Fire Prevention Association, I should challenge, in my own mind, any such statement.

Q. You haven't any knowledge of the difference? A. I haven't any knowledge, no, but I have a knowledge of the painstaking care —

Q. There is not any doubt about it that those heads that are approved are very good heads. The point is they charge twice as much for those heads as you can get other heads that are not approved. A. Has there been any effort made to get the Underwriter's approval?

Q. Yes, and they did not meet with success. It has been openly said and charged that there was a trust — some understanding or agreement. I want to know if your committee had investigated that subject at all. A. We have not, but we will.

Q. We are very glad if we have opened that subject to your minds, so that you can look into it. It has been stated before the Commission that there was some understanding between the nominal five or six companies, but actually two or three, which practically control the sprinkler business of the country, because the insurance companies approved only those sprinkler heads. The fact is pointed out that in Boston and in New England, where they use the sprinkler system, you can get the same sprinkler heads, or substantially the same, for one-half the price that you get them in New York State. A. That's interesting.

Q. Is there anything more that you would like to say to the Commission on the subject of fire prevention? If not, I will

go to some other subject, factory inspection. A. They ask me, "What measures should be adopted to prevent the spread of fire caused by inflammable materials, used and manufactured?" Well, that is rather broad, for that contemplates a technical question.

Q. No, that contemplates this: In many factories the clippings from material are thrown indiscriminately on the floor. Would you favor every manufacturer being compelled to provide fire-proof receptacles, for instance, and these materials placed in it?

A. The best protection, to my mind, is the baler. You can take anything, paper, rags, or anything else and bale them and compress them to such an extent that they can't burn.

Q. This is from day to day, in large factories in which the accumulation of stuff in an hour on the floor is great. If an employee surreptitiously smokes or uses a match and throws it down carelessly you are apt to have a fire simply from the debris on the floor which has accumulated in an hour, and the suggestion is made that there should be fireproof receptacles provided for all this stuff, just an ordinary metal barrel, perhaps, with a cover. Would you be in favor of having legislation enforcing the use of such receptacles? A. Yes.

Q. Now, are there any further questions that you would like to answer about the fire part of it? A. No, sir.

Q. Now, with reference to sanitary conditions in factories, has your Chamber made any investigation about that, or done any work? A. They have not.

Q. Is there anything else that you would like to suggest to the Commission? A. Nothing except to express my great satisfaction at your doing what you are doing.

Mr. ELKUS: Thank you very much; very much obliged to you.

The WITNESS: I would be glad to file those two booklets with your Commission.

Mr. ELKUS: Thank you; we have copies of them, but we will take these besides. Much obliged to you.

E. S. DYER, called as a witness, being duly sworn, was examined and testified as follows:

By Mr. ELKUS:

Q. What is your full name and your residence? A. E. S. Dyer, 241½ Concord street.

Q. What is your occupation? A. Stationary engineer.

Q. How long have you been a stationary engineer? A. Twenty years.

Q. What other business have you besides that at the present time? A. That's all the business.

Q. What society or organization are you connected with? A. Engineer's Union, State Federation of Labor.

Q. What position or office do you hold in the State Federation of Labor? A. Sixth vice-president, since last September.

Q. What is the State Federation of Labor? I want this for the record; I know myself. A. It is for the betterment of the conditions of the working man, if possible.

Q. It is an association of all laboring men, or unions themselves? A. It is composed of unions.

Q. Delegates from unions all over the State? A. Yes.

Q. Of every trade? A. Yes, sir.

Q. And about how many thousands are members of the State Federation of Labor? A. That I couldn't tell you.

Q. About how many delegates are there? A. There was something like 200 at the last convention.

Q. I think there is one from each union; isn't it something of that sort? A. No.

Q. Now, are you familiar with manufacturing conditions in Rochester? A. In some lines.

Q. What lines are you familiar with? A. Being an engineer, and being called through the plant more or less, the engineering line is the only line that I have ever taken particular notice of.

Q. Now, of course, in your position as vice-president of the State Federation of Labor, you made a study of laboring conditions in factories. We will be very glad to hear what suggestions you have to make as to how conditions can be improved and what the conditions themselves are, if you will, and also

what suggestions you have to make to the Commission for remedial legislation. Tell it in your own way. A. Well, the engineers feel that boiler rooms and engine rooms are not properly ventilated; the conditions become unsanitary; the heat is extreme, in the summer months almost unbearable for an engineer or a fireman, and we feel that those conditions could be bettered in a great many instances.

Q. How could they be bettered? A. With proper ventilation.

Q. Forced draft? A. Forced draft, if possible.

Q. Is there any ventilation at all in most of the machine shops that you have been in, except the windows? A. No, there is no ventilation outside of natural ventilation.

Q. Ventilation from the window is insufficient? A. Yes, in a great many cases.

Q. I mean in a great many? A. Yes.

Q. How about the sanitary arrangements, the toilets and things like that in the factories you have been in? A. In some of them it is all right; in others it is not.

Q. What is needed to remedy these conditions, a more thorough inspection? A. More thorough inspection would not do any harm.

Q. I don't know what it is here in Rochester, but in other cities, the inspection is about once a year. That, of course, is insufficient? A. I think it is.

Q. How often would you say inspections ought to be had? A. I think an inspection ought to be had any time that there is a reasonable complaint offered of unsanitary conditions.

Q. Would you be in favor of waiting for complaints, or having regular inspections without? A. I think the regular inspection is all right, but I think there would be complaints between the regular inspections.

Q. And they ought to be investigated at once? A. Yes.

Q. Is there anything besides the ventilation and the unsanitary conditions that you desire to lay before the Commission? A. The engineers feel that the licensing of stationary engineers ought to have more attention in the cities than it does at the present time. In our estimation, it ought to be under the police protection, or be so that they would be looked after more thoroughly, the licensing of engineers; not so many engineers running in the city without a license.

Q. Who has control of that now, the city authorities or the State? A. The State.

Q. What is the trouble, men running without a license? A. Without a license.

Q. There is no control over that? A. Well, there has been none, practically speaking, only to a certain extent.

Q. You mean that any man can practically start running an engine, and claim himself to be an engineer and that it takes some time to find out whether he is a licensed engineer or not.

A. Yes.

Q. In the mean time he may be risking his own life and the lives of others? A. Yes, sir.

Q. Would you be in favor of waiting for complaints, or having the State Labor Department? A. Personally, no. I believe it would be better under the city department, if it could be in such a way they could be more thoroughly investigated and up to the standard more.

Q. You are interested, of course, in the subject of the inspection of boilers? A. Yes, sir.

Q. Have you any suggestions to make as to improvements in that? A. I think that the boiler inspection ought to be under the jurisdiction of the city, outside of the insurance companies who furnish a boiler inspector.

Q. That is done with insurance, that's voluntary; they don't have to do that unless they want to? A. No.

Q. What other suggestions do you desire to make with reference to registration, or changes in present methods? A. Pertaining to the boiler inspection?

Q. Or anything, any subject that you are interested in? A. Well, the way I look at it, naturally, I believe that the police of a city ought to be in power; that if any policeman goes into a boiler room and finds an engineer or a fireman without a license, he ought to be in a position to see that he has one, and I think the city ought to be in a position to enforce those conditions to the letter. The general public doesn't realize the conditions that exist in boiler rooms where there are picture theatres in operation, with incompetent men handling a boiler. It ought to be that a man would have to serve a certain length of time before he could operate a steam boiler under pressure.

Q. What are the conditions now under which a steam boiler engineer is licensed? A. A man that can answer a few questions before the examining board is granted a license, whether he has ever had a day or a week's experience.

Q. You believe he ought to have a certain amount of experience? A. I believe he ought to, yes, sir.

Q. Do you mean to say in Rochester to-day there are men operating steam boilers, adjacent to places of public amusement, who have no knowledge and no skill on the subject at all? A. Yes, sir.

Q. And that's a daily menace to the lives of hundreds of people right here? A. Yes, sir.

Q. Are you in favor of the registering of all manufacturing establishments, with some either local or State authority? A. Employees?

Q. No, employers. That is to say they should give their names, place of business and kind of business, so that the State may have a list of them. A. I think that ought to be; yes.

Q. Would you be in favor of licensing all manufacturing establishments before they can begin the operation of business, after an inspection, to find out whether they have complied with the law? A. Yes, sir.

Q. Would you be in favor of having this license renewed say annually after inspection so that they couldn't get a license renewed unless they had complied with the law? A. Yes, sir.

Q. Is there anything you would like to lay before the Commission? A. I don't know at this time.

By the VICE-CHAIRMAN:

Q. A good many of the engine rooms are in the basement? A. Yes, a great many of them are in the basement.

Q. What means of ventilation do they have, aside from the half-window there? A. There are some employers that furnish a forced ventilation and others do not; the ventilation is very poor.

Q. There are some, then, in basements with good forced ventilation? A. Yes, few of them.

Q. Do you know why the employers put those in? A. I think they were fair to the employees; wanted to have good, fair conditions for them.

By Commissioner PHILLIPS:

Q. Is there a local ordinance requiring the issuance of licenses to engineers? A. Yes.

Q. Who has the power to issue them? A. An examining board.

Q. Composed of whom? A. Engineers.

Q. The enforcement of the requirement is up to the Police Department? A. Not exactly; I believe the ordinance officer in this city is the only one that has anything to do with the license question outside of the examining board.

Q. Is he a member of the uniformed police force? A. Yes.

Q. It would be his duty to find out whether or not men were operating without a license? A. It ought to be.

Q. Don't you think that a default ought to attach to the owner of a boiler that would employ a man that didn't have a license? A. Yes, sir.

Q. Are you a member of the National Association of Steam Engineers? A. No, sir.

Q. Are you familiar with the bill that they have had in the Legislature several years, requiring licensing? A. State license?

Q. Yes. A. I am not so familiar with it that I could go into details on it.

Q. You don't care to express an opinion as to whether the principal or the theory of that bill is right? A. I believe that calls for a State license, issued by the State, does it not?

Q. I think so, yes, and is in conflict probably with the New York regulations in that respect. A. I wouldn't care to make a statement on that at this time.

Mr. ELKUS: That is all, thank you.

CHARLES S. OWEN, called as a witness, being duly sworn, was examined, and testified as follows:

By Mr. ELKUS:

Q. What is your full name? A. Charles S. Owen.

Q. Where do you reside? A. Home residence?

Q. Your office residence. A. 34 City Hall.

Q. What position do you hold in the city government of Rochester? A. Commissioner of Public Safety.

Q. What are the duties of the Commissioner of Public Safety? A. The Commissioner of Public Safety has charge of the various Bureaus of Fire, Health and Buildings.

Q. You have in the city of Rochester a Fire Department? A. Yes, sir.

Q. Which has a chief, I suppose, at the head of it—a uniformed force with a chief at the head of it. You are his superior officer? A. Yes.

Q. And also a Building Department, I suppose, with a Commissioner of Buildings? A. Fire Marshal is the title.

Q. And you are his superior officer? A. Yes.

Q. Will you tell us briefly what are the duties of the Fire Marshal? A. The Fire Marshal has general jurisdiction over the passing upon plans for buildings to be erected and remodeled. He is charged with the enforcement of the building ordinances and also with the enforcement of the ordinance relating to the sale and storage of combustibles.

Q. Does the Fire Marshal pass upon all plans for buildings for all purposes, or only from a fire standpoint? A. Upon all plans of all buildings.

Q. To see whether they comply with the building rules and regulations? A. Yes, sir.

Q. Now, in your position as Commissioner of Safety, what are your duties, more particularly with reference to fire-escapes on buildings? Confine yourself to factory buildings where people are employed. A. The building ordinances of the city of Rochester prescribe what is required in the way of fire-escapes upon all buildings.

Q. What is required by the ordinance, generally speaking, in a factory building? A. Fire-escapes are required upon all buildings over two stories in height, where there are insufficient means of egress by inner stairs.

Q. Are these fire-escapes which are in use in Rochester, the balconies on each floor with a straight up-and-down ladder there? A. The building ordinances of the city will state just the requirements.

Q. Well, I am asking you now, Commissioner, what kind of fire-escapes exist on factory buildings? You know what I mean by the straight up-and-down ladder? A. With the gas pipe attached to the building? The old style do you refer to?

Q. They might call it that; new style some places. A. That is not permissible in this city under our ordinance.

Q. What I refer to is a balcony with a hole in the floor of it, and the ladder running down to the balcony below, straight ladder running right down. A. We require iron steps.

Q. With steps or with rungs? A. With iron steps.

Q. You mean you have to have a flat surface? A. Steps leading down from the balcony on the outside.

Q. Do the ladders slant or are they vertical? A. They slant.

Q. In every case? A. Yes, sir.

Q. Do you require the ladder from the lowest balcony to the ground, or is that omitted in many cases? A. That is required.

Q. Now, as a matter of fact, do all the buildings have these fire-escapes? Are they required to have them in the city of Rochester? Do they have fire-escapes that have slanting stairways with steps, or isn't it a fact that many of them have the old style ones, with simply a straight up-and-down ladder, without a rung, a circular rung? A. Mr. Counsel, for the intimate details in regard to the fire-escape law, I would have to refer you to the Fire Marshal; I follow it only in a general way.

Q. You have charge of three departments? A. Four bureaus.

Q. Well, let me ask you this, and if you are not familiar with it, I will discontinue. It is recognized, isn't it, Commissioner, that these straight up and down fire-escapes, with ladders having round rungs, are useless, practically, in case of fire? A. I wouldn't say that they were practically useless; they are not desirable.

Q. Well, it has been demonstrated, hasn't it, that it takes an athlete to get up and down them? A. Would have to be nimble.

Q. Commissioner, have you made any investigation yourself, or had one made, with reference to other means of saving life in case of fire, besides exterior fire-escapes in Rochester? A. Mr. Counsel, the Fire Marshal could answer that question for you.

Q. Have you ever studied the subject yourself? Have you studied fire walls? A. Not personally.

Q. You know what a fire wall is? A. Yes, sir.

Q. Have you given any thought to the subject of having one factory building connected with another, by an iron porch, over which the employees could pass in case of fire? A. Not personally.

Q. What do you do with reference to wooden stairways in factory buildings? A. That is also a question you would have to put to the Fire Marshal to answer.

Q. Now, with reference to buildings themselves, does the Department of Buildings, or your Fire Marshal, have charge of ventilation of factory buildings? A. The ventilation of factory buildings would come under the Bureau of Health jurisdiction.

Q. The Health Department? A. Yes, sir.

Q. Is that one of your bureaus? A. Yes, sir.

Q. Who is at the head of that? A. Health officer.

Q. What is his name? A. George W. Goler.

Q. He is here? A. Yes, sir, he is here.

Q. And I suppose he also has charge of the sanitary conditions? A. Yes, sir.

Q. Now, Commissioner, are there any matters which you desire to lay before the Commission, any statement of any facts which you have in your possession in reference to this subject which we are investigating, or any suggestions as to legislation? A. Well, the subject of greater safety to employees in factories has always been one, at least since I have been in office here, more or less discussed, and ways of improving conditions considered. What we lack in the way of local laws or ordinances in the correction of conditions that are bad, we have many times assumed to handle as a police regulation, probably without the warrant of law, but we have been able to clean up and make more safe conditions as we find them, by resorting to what we call in this town a police regulation.

Q. What kind of a regulation is that? A. For example, a building is reported to us as containing a considerable amount of inflammable material, rubbish improperly stored, oily waste, rags not kept in the proper receptacles; we learn of those conditions and an inspector or a police officer is sent to notify the owner or tenant that those dangerous conditions must be done away with immediately, and we invariably have the co-operation of the owner or tenant of the building.

Q. Well, that isn't any regulation; that's simply — A. It's an informal order, if you may call it such.

Q. Have you any means of enforcing that order if the owner or proprietor refuses to obey it? A. We have in our building laws a provision for handling conditions of that sort; we label the building as dangerous, a menace to public safety.

Q. You mean you can put a sign on it? A. Yes, sir.

Q. Can you close it up, stop work there? A. If conditions warrant closing up, we would close up a building.

Q. What conditions would warrant a closing up? A. Any condition we might find that was a menace to the safety of employees.

Q. Supposing you found the buildings in a shockingly unclean condition, could you close the business up? A. I doubt whether we could do that.

Q. Yet it might be a menace to all the employees? A. Still we have a way of handling the sanitary conditions in the factory, through the Public Health Law of the State.

Q. Have you ever closed a building since you have been Commissioner of Public Safety? A. On account of sanitary conditions?

Q. Yes. A. A factory building?

Q. Yes. A. I think not.

Q. Have you ever known of one to be closed in the city of Rochester? A. No, I can't say I have.

Q. And yet the conditions which you speak of exist here, don't they, from time to time? I don't mean always, but they do exist? A. Well, that I couldn't answer.

Q. Have you ever called upon the State Labor Department to aid you in the matter of cleaning up factories where they are required? A. No, sir, but we have been called upon for aid from factory inspectors.

Q. What kind of aid? A. I can't give you the details.

Q. I would very much like to know if you have any record which shows where the State factory inspectors called upon your department for help and aid. Have you any record of it? A. That I may look up for you.

Q. Will you be kind enough to send it to the Commission? A. Yes.

Q. Can you give us any information as to what kind of aid they called upon you for? A. I can't give you the details at this time; no, sir.

Q. Commissioner, you recognize, I take it, that in case conditions are very bad in a factory, that some one ought to be given summary power to stop the business of manufacturing in a factory until the conditions were remedied? A. Yes, sir; I think some regulation of that sort should be in effect.

Q. Are you in favor of registering all manufacturing establishments in Rochester with some local or State authority? A. For what purpose?

Q. So that the authorities may know the location of all factory establishments. I don't suppose you know where all the factories are located in the city of Rochester, except as they are reported by the different departments under your control as they may happen to find them, either by seeing them on the streets, or having them reported to them. A factory might exist in a large city for months and years without being known. A. It might, yes, but we have a pretty general idea of where they are.

Q. We have found that all of the authorities of cities have had a general idea of where they are, but they couldn't get down to practical facts. Now, the theory of registration would be that some authority in the city or State would know the name of the proprietor, the kind of business carried on and the location of the factory. A. A census of that sort would be desirable.

Q. Would you be in favor of licensing each manufacturing establishment before it is allowed to begin business, so that you could ascertain before it began whether the building was erected in compliance with all the laws, and whether or not the manufacturing establishment itself was in compliance with the law? I don't say whether the license should be granted by the State or city — that's immaterial at the present moment. A. I don't think I would care to answer that question now.

Q. Now, is there any other matter, Commissioner, that you would like to speak of before the Commission, or any remedial legislation that you would like to suggest? A. I don't think of any more, Counsel.

By Commissioner PHILLIPS:

Q. What are you doing, Commissioner, in the way of inspection and fire prevention in Rochester? Is the Fire Department doing any work of that kind? A. The Fire Department is about to assume responsibility along the lines that you have spoken of, by causing to be made each month an inspection of all retail and manufacturing plants, particularly in the so-called high fire district, where, in the event of a great fire or conflagration, the results would be disastrous to the city.

Q. Those inspections to be made monthly? A. Those inspections will be made monthly.

Q. Will it require any legislation to carry out the results of that investigation or inspection, or to remedy conditions you find? A. It might be necessary to have legislation to assist us in carrying out the results of it; yes, sir.

Q. The inspection will be made by firemen? A. By firemen.

By the VICE-CHAIRMAN:

Q. Is that going on at the present time? A. Just about started.

Q. There is one man, according to the testimony, that has charge of enforcing all the ordinances. Is that right, only one policeman? A. Oh, no; all officers are charged with the enforcement of the laws and ordinances of the city and State.

By Commissioner PHILLIPS:

Q. This particular man, it has been his special duty? A. The ordinance sergeant you refer to?

Q. Yes, some one testified while you were out that he was the man to enforce the ordinance.

By the VICE-CHAIRMAN:

Q. Let the Commissioner understand it. An ordinance with regard to the licensing of engineers. A. Oh, yes.

Q. That would be up to the Ordinance Officer? A. That would be up to the Ordinance Officer, yes.

Q. It was testified before you came in that there are a number of engineers operating in the city of Rochester without a license. In your opinion how many boiler rooms would be left to that one sergeant to look after? A. Why, he has charge of all the licensing of all stationary engineers.

Q. Well, yes; but we are talking about the man that is operating without a license. He has to go around and find out, does he not?

A. He visits the plant, yes, sir.

Q. How many plants has he to visit? A. I am unable to state the number.

By Mr. ELKUS:

Q. It has been testified to here, Commissioner, that there are a number of moving picture shows where steam boilers were operated by unlicensed and unskilled engineers, which are a menace to the lives of those people who visit these shows in great numbers. Can you give us any information about that? A. Many of the picture shows the boilers are operated by unlicensed engineers?

Q. That is what was stated? A. Well, I don't think that's a fair statement of fact.

Q. Do you know anything in regard to it? A. I occasionally receive a specific complaint, which is immediately referred to the Ordinance Officer.

Q. Outside of receiving a specific complaint, you haven't any knowledge of the subject at all? A. No personal knowledge.

Q. I mean your department. A. The knowledge I have is through the Ordinance Sergeant, who visits the plants.

Q. Commissioner, can you tell the Commission, generally even, of the methods of egress from factory buildings in Rochester in case of fire? A. No, I couldn't tell you generally, no, sir.

By the VICE-CHAIRMAN:

Q. In the beginning, Commissioner, did I understand you to say that no fire-escapes were needed where sufficient egress was to be had by stairs? A. In buildings two stories or under, I think that is the wording of the Building Ordinance.

Q. That doesn't apply to a building more than two stories? A. No; the ordinance requires fire-escapes on buildings over two stories. The Fire Marshal could quote you the ordinance.

By Mr. ELKUS

Q. Do you know the moving picture show called the "Happy Hour," on St. Paul street? A. I know of such a place; yes, sir.

Q. Is it a large place? A. It's an old Episcopal church, remodeled into a picture theatre.

Q. About how many people attend it every day? A. I couldn't tell you.

Q. They begin usually about eleven o'clock in the morning and last till eleven at night? A. Practically continuous during those hours.

Q. A performance, I suppose, lasts half an hour? A. Substantially, yes.

Q. So that it is fair to say there are ten performances a day at least? A. I should judge so, yes, sir.

Q. And, therefore, if the place is filled, there are at least two thousand people in that place a day. Now, I am informed that the engineer who operates the boiler there is an unlicensed engineer and has been so for many months. That is the information that has come to the Commission. Of course, you realize, Commissioner, that such a condition ought not to exist, because you will agree with the Commission that such an unskilled mechanic might endanger the lives of those ten or twelve thousand persons; is that right? A. I believe that the operators of steam plants should comply with the ordinances.

Q. Is it a fact that you only have one man whose business it is to find out whether or not these engineers are licensed and skilled? A. One man is charged particularly with that work.

Mr. ELKUS: Any further questions from this witness, Mr. Chairman?

By Commissioner PHILLIPS:

Q. How large a boiler is that?

Mr. ELKUS: I don't know.

Commissioner PHILLIPS: It is for heating purposes?

Mr. ELKUS: Yes.

Commissioner PHILLIPS: I suppose it is the size of a boiler in a house.

Mr. ELKUS: That's all, Mr. Commissioner; thank you. Is the Fire Marshal here?

HERBERT W. PIERCE, called as a witness, being duly sworn, was examined and testified as follows:

By Mr. ELKUS:

Q. Will you give us your full name? A. Herbert W. Pierce.

Q. What is your position? A. Fire Marshal of the city of Rochester.

Q. Will you tell us the duties of the Fire Marshal? A. To enforce the building laws and the laws of the storage of combustibles.

Q. Have you control of the methods of egress from factory buildings in case of fire? A. Yes, sir.

Q. Briefly state how many factory buildings are there in Rochester under your jurisdiction? A. How many factories?

Q. Yes. A. Well, that is a hard question to answer.

Q. Have you in Rochester any registration of any of the factories? A. We don't keep a registration of the factories alone, — all buildings.

Q. You have a registration of buildings, have you? A. Yes, sir.

Q. Where manufacturing goes on? A. Not entirely, no. Records have never been kept.

Q. What records have you about factories? A. We have records of inspections of all the factories in the city, but not as to the number.

Q. You have a record, then, of what — the factories you inspect? A. Yes, sir.

Q. Who inspects them? A. The building inspectors.

Q. How many are there? A. Four.

Q. How often do they inspect them? A. I will modify that by saying six; we have two minor inspectors, that inspect base-

ments of all buildings in the congested districts, once about every five weeks.

Q. Basements of the congested districts? A. Yes; that is in regard to keeping the basements clean of rubbish and so forth. Then our building inspectors will go over the buildings possibly once in six months.

Q. Have you a list of buildings they examine? A. Oh, yes.

Q. Is that list on file in your department? A. Yes, sir.

Q. How many buildings are on that list? A. It is hard to say; they are all together, dwellings and all.

Q. Can't you give the Commission any approximate idea of how many factory buildings there are in the city? A. Not without looking up the records.

Q. What regulations are there with reference to fire-escapes on factory buildings? A. Fire-escapes are required upon all buildings more than two stories in height, not having more than one means of egress.

Q. That is, if a building is more than two stories in height, and has only one staircase, you require an exterior fire-escape? A. Yes.

Q. What kind? A. Square fire-escape, not less than 24 inches in width, 45 degrees slant, with balconies on each floor, covering at least two windows.

Q. You prohibit the use of the vertical fire-escape? A. Yes, sir; not recognized.

Q. Are there any such in Rochester? A. A few; yes, sir.

Q. They have been put up and you don't require them to be changed? A. They have mostly two stairways in those same buildings.

Q. You recognize from your experience that the vertical fire-escape is practically useless? A. Practically useless, yes, in case of emergency.

Q. Besides fire-escapes what other methods of saving life do you have in case of fire? A. Fire pails, sprinkler systems in basements of all new buildings.

Q. Are the sprinkler systems compulsory in basements? A. In basements of all new buildings.

Q. Only in the basement? A. Yes.

Q. Why is that? A. We didn't think we could enforce a law compelling people to put in sprinkler systems.

Q. I was coming to that. Not because you didn't think the sprinkler system was not good, but because you did not think you had the power? A. Yes.

Q. How do the duties and position of the new Fire Marshal of the State of New York conflict with yours, if they do? A. They do not conflict, except in this way: We make an order on a person to improve the condition. That person has a right to appeal and has a ten-days' time to appeal from the decision and order of the local Fire Marshal.

Q. What regulations have you with reference to refuse and material upon the floors of factories? A. I can only say that in case of rubbish we can make them keep their places clean.

Q. If you find the rubbish, you can make them pick it up? A. Yes.

Q. Is there any regulation requiring the factory owner or proprietor not to permit rubbish to be thrown upon the floor, but to be placed in some fireproof receptacle? A. No, sir.

Q. Would you be in favor of a statute of that kind? A. Under certain conditions, yes.

Q. What conditions? A. It all depends upon the character of the rubbish.

Q. I mean where the rubbish is inflammable. A. I would, yes, sir.

Q. Such as the textile stuff? A. Yes, sir.

Q. And linens and cotton goods? A. I think it would be very advisable.

Q. You think that such an ordinance or a law could be easily enforced? A. I do.

Q. Don't you believe, Mr. Pierce, that it would prevent a great many fires? A. Undoubtedly so.

Q. It is your experience, I take it, that fires in these manufacturing buildings are often caused by an employee carelessly throwing a lighted match or lighted cigar or cigarette upon the floor where there is this material which is inflammable? A. I would not say as to that but I think it is from carelessness.

Q. I mean it is pure carelessness? A. Yes, sir.

Q. Those fires are preventable, are they not? A. Yes, sir.

Q. What do you do in factory buildings with reference to doors which lead out, as to whether they open inward or outward? A. On all plans that are approved for new buildings all doors are required to swing out.

Q. How about old buildings? When you say all plans for new buildings, from what time on do you require that? A. The ordinance we are now working under was adopted the 17th of October a year ago.

Q. Prior to that the doors could open in or out? A. Yes, sir.

Q. Have you any regulations requiring all doors in factories where people are employed to open outward? A. No, sir.

Q. You recognize that very often where doors open inwardly and there is a fire, the employees rushing for the door crowd around it, and are unable to get out at all? A. Very apt to be the case.

Q. They stand in their own way and are caught like rats in a trap? A. Very apt to be the case.

Q. Would you not favor some regulation which required all doors in factories to open outwardly? A. Yes, sir.

Q. Haven't you got the power under the present law or ordinance to require that now? A. I don't think we have.

Q. Can you tell me in the factory buildings how many doors you know of that open outwardly? A. A great many of them; I could not tell you how many.

Q. How many opened inwardly? A. A great many.

Q. They are a daily menace to life as long as they exist? A. Yes, sir.

Q. Have you asked factory owners or proprietors to change their doors? A. Many times.

Q. Have they refused? A. Some of them haven't the means to do it; that is they haven't a way to swing them out so they will not encroach upon the public highway.

Commissioner PHILLIPS: I suppose sometimes it would block the hall? A. Lots of times.

By Mr. ELKUS:

Q. Outside of those cases have they refused? A. No. They have not.

Q. Don't you know the State Labor Department has authority to compel them to do it? A. I don't know.

Q. Haven't you made a study of the State Labor Department law with reference to factories? A. I have, yes.

Q. You say there are cases when they can't open them outward because they open on public streets or staircases? A. In some cases it is almost impossible, without making changes in their hallways.

Q. Have you suggested to them to have sliding doors? A. No, I never have.

Q. Has that never occurred to you? A. Sliding doors in my estimation would hardly be the thing in some cases—in cases of emergency, for instance.

Q. Wouldn't they be better than a door opening inwardly? A. Well, I would not want to say that they would be.

A. It has been testified to by the experts before the Commission that they would. A. Some sliding doors would possibly.

Q. Can you conceive of any case where a sliding door would not be better than a door which opened inwardly? A. If a crowd got around a sliding door——

Q. Don't you think even if a crowd were pushing against a sliding door there would be a chance of opening it? A. Not unless there was some way of having a latch.

Q. Which you could not do at all, under any circumstances with a door opening inwardly? A. Door with a knob or catch, even though it opened in, people recognize they would either have to go one way or the other. The sliding door if it has a catch on it, you would think it is locked, unless a person was used to pulling the catch.

Q. In the Triangle Waist fire they found the bodies of 20 or 30 or more girls against the kind of a door you have described, with the knob——because it opened inwardly and they could not get out. A. Possibly the door was locked.

Q. One of the doors was not locked. Have you found any locked doors? A. Occasionally, yes.

Q. What do you do in that case? A. We have it immediately unlocked, and order it to be kept unlocked in the future.

Q. How often do you inspect to find out if they are unlocked? A. Our inspectors are continually going over the ground.

Q. How often do they inspect the factories in the city? A. About once every six months.

Q. Do you ever prosecute for locked doors? A. Never have had an occasion.

Q. Have you ever had any prosecutions for violations of the laws or ordinances with reference to factories? A. We don't have to use that means.

Q. Do I understand you to say that there are no violations of law which have occurred during your time in the city, which have required prosecution? A. No, sir.

Q. Mr. Pierce, with reference to wooden stairways in factory buildings, what regulation have you? A. None, sir; except in fire-proof buildings.

Q. There are a great many bakeries in Rochester, aren't there? A. Yes, quite a few.

Q. Have you any cellar bakeries? A. Yes, sir.

Q. You have no ordinance or law prohibiting them? A. Not in our building code.

Q. Is there any inspection of these bakeshops? A. Yes, sir.

Q. How often are they inspected? A. About the same time.

Q. Is that done by you or by the health officer? A. It is done by our Bureau, and I suppose the Health Department also, but we haven't the jurisdiction over bakeries except in keeping——

Q. I noticed from your testimony that you do a great deal of the inspecting which the State Department of Labor is supposed to do. A. I presume we work in conjunction.

Q. Duplication of inspection and duplication of effort? A. Yes, sir.

Q. Of course, that is not desirable, is it? A. In a great many ways, yes; we work in conjunction with each other.

Q. Don't you think there ought not to be this unnecessary expense? A. That might be so.

Q. Would it not be more advisable to have one authority? I am not prepared to say which should be placed in charge, the city or the State. A. The responsibility for all buildings in the city of Rochester is now under the Bureau of Buildings of which I am the head, and I am responsible for the conditions.

Q. You have nothing to do with the question of sanitary arrangements in factory buildings? A. No, sir.

Q. So while your inspectors are inspecting for fire-escapes, and building law violations, the Health Department inspector inspects for violations of the sanitary law? A. I presume that is the case.

Q. Are there any other inspectors inspecting at the same time? A. The captains of the different fire departments.

Q. So that there are three local inspections going on, substantially co-existent? A. Yes, sir.

Q. Then there is the State Labor Department which also inspects? A. Yes, sir.

Q. So we have the spectacle of the State and city paying for four inspections. Have you any suggestion to make as to how that could be remedied and that expense saved? A. Duplication of inspections, of course, means that the cost to the State and municipality, if possible, could be arranged to be under one head. However, I think it might come back to either the city or the State to put on more inspectors, which possibly would mean the same outlay.

Q. Let us see; your inspectors all have to go first and get certain statistical information? A. Yes, sir.

Q. That statistical information is exactly the same for the Health Department, the Fire Department, for your Department and the City Department? A. Yes, sir.

Q. The same for either Department which has gathered that information? A. Why, yes.

Q. And yet if there was one inspector inspecting for all the work done, you would only have to do that work once and not four times? A. I don't see how you could find a man that would be qualified to look after the varying interests.

Q. If you paid him enough and had the power of selection, you could find out? A. I doubt it. I think it is impossible to have a man that will be qualified to look after the health interest and also the plumbing.

Q. This Commission has had some practical experience in that line by employing their own inspectors who have inspected for all these things, and have been able to report about it. Are you in favor, Mr. Pierce, of the registration of all factories? You heard me explain to the Commissioner what I meant? A. Yes, that would

be apt to give the authorities a chance to know exactly the kind and location.

Q. Would you be in favor of licensing all factories? A. I can't say that I would.

Q. Why not? A. A license with a fee you mean?

Q. I have not said anything about fee. A. A license I presume would act in the same way as a registration would.

Q. Except they could not begin business without having a license. A. I think possibly that would be a very good idea.

Q. Would you be in favor of having it renewed every year after inspection? A. Well, a great many of the manufacturers move occasionally and it might be good idea.

Q. Of course, you realize that a manufacturer moves and he fits up a place of business and it might be entirely improperly fitted up and your Department would know nothing about it for six months? A. You might get into a building not properly equipped.

Q. So a proper method of controlling that would be the requirement of a license before he could begin business? A. Yes, sir.

Q. Now, are there any other matters which you should like to state to the Commission or any other suggestion you have to make looking toward remedial legislation? A. There might be laws enacted that would protect property from adjoining dangerous property and so forth.

Q. Mr. Pierce, you are familiar with factory buildings yourself in Rochester? A. A great many of them, yes, sir.

Q. Are there many buildings in Rochester which have wooden staircases which are being used for factory purposes? A. Yes, sir.

Q. How many buildings are there that have such wooden staircases? A. I presume 80 per cent of them.

Q. Those buildings have wooden floors? A. Yes, sir.

Q. And how wide is the average staircase in these 80 per cent of buildings that are used for factory purposes? A. Three to six feet.

Q. Now, you have no control over the width of the stairway, have you, in existing buildings? A. No, not in existing buildings.

Q. You can't make them wider? A. No.

Q. You can in new buildings? A. Yes.

Q. In new buildings they are required to be a certain width, according to the number of people employed? A. Yes, and the number of stairways increases in proportion to the size of the building.

Q. Tell the Commission what your opinion is about the danger of fire with these wooden stairways and wooden floors? A. A building that is equipped with open wooden stairways is dangerous in case of fire spreading, because they are open from top to bottom.

Q. They are narrow and dark in many cases? A. In many cases.

Q. They wind around an elevator shaft or hatchway? A. Yes.

Q. This hatchway is nothing more than a flue through which the flames would come? A. Yes.

Q. So that anybody passing down this staircase in case of fire would be liable to be killed? A. Liable to be suffocated in case of fire.

Q. Therefore 80 per cent of the buildings in Rochester to-day that are used for factory purposes, are in pretty bad condition? A. They have wooden stairways.

Q. You say they are dangerous? A. Lots of them are.

Q. I mean there are 80 per cent of buildings that have these conditions? A. I will modify that. You asked me how many buildings had wooden stairways. A great many of the buildings in the city, 80 per cent, have wooden stairways enclosed by fire walls, some of them.

Q. How many would you say have fire walls? A. Possibly not more than ten per cent of them.

Q. So then we will cut it down to 70 per cent that have no fire walls, and they are wooden stairways, and very often they wind around over an elevator shaft or a hatchway? A. Yes.

Q. Such buildings, in plain English, are fire traps, are they not? A. I would not say they would be fire traps; it is dangerous to go down those stairways in case of fire.

Q. Can you tell me how many people are employed in this 70 per cent of buildings? A. It is a hard thing for me to say.

Q. Thousands? A. Yes, thousands of them.

Q. Have you ever known of a fire drill in Rochester? A. Yes.

Q. How many buildings have them? A. Why, I know of ten or twelve to my knowledge.

Q. Those are the big model factories I understand that exist here and of which you are very justly proud? A. Yes, sir.

Q. And where there is the least need for them? A. In a great many cases.

Q. Those are the fireproof buildings where they have many fire-escapes, many ways of exit and sprinkler systems and automatic fire alarms, and they have the fire drills? A. Yes.

Q. Did you ever know of a fire drill in these 70 per cent of buildings where they have the wooden stairways? A. Yes.

Q. How many? A. I could not say.

Q. Can you tell me of one? A. Can I tell you one?

Q. Yes. A. Oh, yes.

Q. Which one? A. I can tell you of several on St. Paul street in the clothing factories.

Q. In a wooden staircase building? A. Yes.

Q. Now, Mr. Pierce, you concede, don't you, that this 70 per cent of conditions require remedies to make them better in case of fire? A. Oh, yes.

Q. What would you suggest should be done to those buildings? A. Why, those 60 or 70 per cent of buildings I speak of have modern outside fire-escapes, probably 90 per cent of those buildings.

Q. Are there any that have not? A. Well, some have two flights of stairs. There are very few buildings in Rochester that haven't some means of exit in case of fire.

Q. Have you ever seen these outside fire-escapes used in case of fire? A. Yes.

Q. Isn't it a fact that most of them are never used in case of fire, except by the firemen who go up them? A. A fire-escape will never be used in high buildings until the stairways of the building are out of commission.

Q. Isn't it your experience or your knowledge as an expert on the subject that very often the only use the fire-escape is put to, is by the firemen as they come to the building with the hose? A. In most cases, yes.

Q. Haven't you heard Fire Chief after Fire Chief say that they are very convenient for the fireman for that purpose, but no good for any other purpose? A. I would not want to say that.

Q. Isn't it becoming the best expert opinion now that exterior fire-escapes, unless they are practically staircases, are not of much use? A. Yes, that is so.

Q. Wherever you have a balcony. Take this one we can see right here (indicating from window), that is a pretty good one? A. Yes.

Q. Wherever you have one like that in case of fire it would be impossible for any great number of people to go down? A. That is a winding stairway.

Q. A winding stairway, but it is not very broad or big? A. Well, it is 24 inches wide.

Q. That is a modern building with every modern appliance? A. Yes, sir.

Q. That is the best of its kind? A. Yes, sir.

Q. Have you noticed in the buildings that you have inspected, that in many cases to get to the fire-escape you have to climb over the sills? A. Yes, sir.

Q. And that, of course, is very bad? A. Yes, sir.

Q. Haven't you any power of remedying that? A. No; we have not.

Q. You have known of where they have dropped and fallen as they have climbed over? Yes.

Q. Ought not all fire-escapes, exterior ones, be built on the level with the floor, and the window or door be made to open flush with the floor? A. That is the way they should be built by right.

Q. You would favor legislation compelling that? A. Well, it is a hardship sometimes on the owners.

Q. I mean in new buildings? A. Yes, sir.

Q. Now, about hardship, of course, no one wants to put any greater hardship on the owners than is possible. How many windows do the fire-escapes enclose in Rochester? A. Two.

Q. They must enclose two? A. Yes, sir.

Q. Are the windows marked or designated in any way from the inside? A. Yes, in mostly all cases.

Q. In what way? A. By a sign, "Fire-escapes."

Q. Would you be in favor of requiring the window frames to be painted red for instance? A. Why, anything that would designate it clearly.

Q. Better than a sign, I mean? A. Yes, sir.

Q. Do you require windows that lead to fire-escapes to have what is known as wired glass, which is not quite as inflammable as others? A. No.

Q. Would you favor that? You know what I refer to? A. Oh, yes, yes. Why, a wire glass window opening on to a fire-escape in case the window was opened would not help the conditions any.

Q. Well, it prevents the flames from coming out? A. Coming out on the fire-escape.

Q. The object of it is this: Suppose people are going down from the fifth floor, and there is a fire on the third and the second floors. If you had the ordinary windows with the ordinary sash, the flames would come out and envelope the fire-escape so they could not go by without great danger, whereas if you had the metal sashes, metal window frames, and this wire glass, the flames would be kept inside the building? A. Yes, they would.

Q. In view of those facts would you favor some legislation, would require them, for instance, in new buildings? A. The wired glass is a protection, of course, the same as a shutter would be opening on to a fire-escape.

Q. Now, Mr. Pierce, you said there were 70 per cent of these factory buildings that are in the condition you told us about. Have you done anything to remedy those conditions? A. About stairways?

Q. Yes. A. We have no laws that we can.

Q. Have you appealed to the Factory Department? A. No.

Q. Do you mean to say that under your law if they are a menace to life you can't prevent it? A. I don't say they are a menace to life.

Q. You have told me they are dangerous in case of fire? A. To go down the stairway, yes.

Q. And dangerous to life in case of fire? A. Yes.

Q. And if they were not able to go down through the fire-escapes and had to go down the stairs in case of fire it would result in loss of life? A. Yes, sir.

Q. Large loss of life? A. Possibly so.

Q. Don't you think it is up to you to find some way to remedy those conditions? A. We have laws that compel those property owners to have outside fire-escapes.

Q. Can't you compel these people to build fire walls around these wooden staircases? A. No.

Q. You mean to say that under the law neither you nor the Labor Department can do it? A. I don't know what the laws of the Labor Department are.

Q. Do not your fire ordinances give you authority in that regard? A. I don't think they do; no, sir.

Q. Have you ever tried to have an ordinance passed by your common council or your local authorities requiring that to be done? A. Yes, sir.

Q. Has it failed? A. Yes, sir.

Q. Why? A. I could not say why.

Q. When did you try to have it passed? A. Through the Commission that has been appointed to regulate the building ordinances of the city, the proposition has been brought up several times to cut out certain large areas of buildings with fire walls, and it has been cut out of the code.

Q. It was voted down? A. It was voted down.

Q. You are in favor of it? A. I am.

Q. You think it is absolutely necessary that something of that kind should be done to remedy these conditions? A. In certain classes of buildings.

Q. Do you co-operate at all with the State Labor Department on this question? A. Yes.

Q. Have you spoken to either the Commissioner of Labor or Deputy Commissioner of Labor and called his attention to these conditions? A. I have not.

Q. The Deputy Commissioner is a fellow townsman of yours? A. Yes, sir.

Q. The distinguished ex-Secretary of State? A. Yes, sir.

Mr. ELKUS: That is all.

The WITNESS: There is one point I want to bring out. You asked if we had ever done anything in regard to prosecuting individuals that had property that was a menace. We haven't had to prosecute. We have closed up buildings until certain conditions were remedied.

Q. Now, in case of locked doors, have you ever punished these people for locking their doors in factory buildings? A. Cautioned them.

Q. Do you think that is sufficient? A. The remedy is at hand.

Q. What is that remedy? A. We always found the conditions complied with.

Q. I know, for the time being, but, of course, it is a very simple thing to look and unlock a door in a factory building? A. Yes, sir.

Q. And a locked door in the time of fire means a disaster. Now, don't you think you ought to punish a man whom you find locking a door so he would never do it again? A. Have to find some way to do it, I am afraid.

Q. You can find it. Have him arrested. A. We can have him arrested, whether we find it or not.

Q. But that is not up to you? A. No.

By Commissioner PHILLIPS:

Q. Have you any particular views you want to give the Commission with regard to what are proper fire-escapes, either inside or outside the building in new buildings? A. I recognize the value of approving stairways enclosed with fire walls on the outside of a building, or a stairway that you will have to go outside of the building and reenter, so it would not be connected with the building.

Q. You think the law ought to require that in all new buildings where a certain number of people are going to be employed? A. I do.

By Commissioner DREIER:

Q. Do you have any jurisdiction over the inside of factories, the condition of machinery, the passages being clear to the fire-escapes and exits? A. No.

Q. Is there a good deal of over-crowding? A. Not so much, no.

Q. Would you advise putting the control of the fire protection entirely in the hands of the city, rather than in the hands of the Factory Department? A. I would, yes.

By Mr. ELKUS:

Q. Mr. Pierce, have you in the city of Rochester, the loft building as a factory building, or haven't you got to that stage yet? A. We have only one loft building, seven stories in height; the balance of the buildings are less in height.

Q. Is that a fireproof building? A. No; mill construction.

Q. Has it an elevator and wooden floor and wooden stairways? A. Wooden stairways enclosed in brick walls; elevator enclosed in brick; sprinkler system.

Q. You are familiar with the modern loft building in the city of New York? A. Yes.

Q. Is there any indication of any of those being built here? A. No, sir.

Q. You have not got that problem? A. We have not got that problem.

Q. For which you are truly grateful? (No response.)

By Commissioner PHILLIPS:

Q. Along the line of the construction of factories, can you tell us how many new factories have been built in Rochester during the last five years? A. I cannot without looking up the records.

Q. Can you state approximately how many in the last two years? A. Approximately fifty buildings of the modern type.

Q. Do you recall among the new buildings, any building that contains anything in its construction that is a menace to life or safety? A. Why, they are built on the lines drawn up by our building code, and we think they are modern buildings. There are some things that, of course, could be bettered.

Q. They have wooden floors? A. Wooden floors, yes.

Q. But fireproof walls? A. Yes.

Q. And all the staircases are enclosed? A. All the staircases are enclosed.

Q. In fireproof walls? A. Yes.

CHARLES LITTLE, called as a witness, and being duly sworn,
testified as follows:

By Mr. ELKUS:

Q. Will you give us your full name? A. Charles Little.

Q. Your address? A. 62 Wilder street.

Q. You are Chief of the Fire Department of the city of Rochester? A. Yes.

Q. How long have you been Chief? A. Nine years.

Q. And prior to that, what was your position in the Department? A. Battalion Chief and Captain.

Q. You worked your way up from the bottom to the top? A. Yes.

Q. How many uniformed men are there in your Department? A. About 297 uniformed men.

Q. How many Battalion Chiefs? A. Four.

Q. How many Captains? A. Twenty-seven.

Q. Do the 290 men you refer to include the Captains and the Battalion Chiefs? A. Yes, sir.

Q. Is the city divided into districts? A. Yes, sir.

Q. How many are there? A. Four.

Q. With a Battalion Chief in charge of each? A. Yes, sir; four Battalion Chiefs and Assistant Chiefs.

Q. Chief, what are the duties of the Department with reference to the inspection of factory buildings? A. We have a rule in the Department that governs that. They make an inspection about twice a year. Each Battalion Chief inspects his own Battalion, District and takes from two to three Captains with him, the Captains in the vicinity of where he is making the inspection and he is supposed to do it about twice a year. Then we have started in and we are making a monthly inspection now by bringing in four outside Captains.

Q. Do they make written reports of these inspections? A. Yes.

Q. What becomes of those reports? A. They come to me through the Commissioner of Public Safety.

Q. Filed with you? A. I take the report right up to the Commissioner.

Q. He has a record of your instructions? A. Yes, sir.

Q. Can you tell this Commission how many buildings you inspect a month? A. Well, I could not tell that exactly, because the Battalion Chiefs inspect in their spare time when there aren't fires.

Q. I understood you to say that you made an inspection every month now? A. Yes, just started in.

Q. When did you begin that? A. This morning.

Q. That wasn't because we are coming here? A. No, no, not at all.

Q. Well, before this morning, how often did you inspect? A. I say the Battalion Chiefs made an inspection about twice a year and took from two to three Captains with them.

Q. What did they inspect for? A. Inspected to familiarize themselves with the buildings and report the conditions, locating fire walls, and openings of different kinds; how they can get at the building; location of fire-escapes. They have a regular blank form they fill out.

Q. Have you got one of those forms with you? A. I have not; no, sir.

Q. Could you bring us one this afternoon? A. Yes, sir.

Q. Will you be kind enough to do it, Chief, at two o'clock, after we take a recess? A. Yes.

By the VICE-CHAIRMAN:

Q. Right at that point, Counselor, I would like to ask the Chief if that inspection is being made for the purpose of having means of fighting fire after it commences, or with a view to preventing it? A. Both; and if we find any conditions that we think are dangerous, they are put on this blank and then forwarded to the Commissioner of Public Safety.

By Mr. ELKUS:

Q. Have you any authority to remedy them, or do you just report to the Commissioner? A. Just report to the Commissioner.

Q. Then it is up to him to take care of it? A. Yes.

Q. What kind of things do you regard as being dangerous? A. Well, the blocking of the fire-escapes; waste paper in basements, waste paper on the floors; all such conditions as that.

Q. How about wooden staircases? A. We report that in the report.

Q. The Commissioner then, has a record of every wooden staircase in a factory? A. Well, I suppose he has a record of that.

Q. Do you know whether there is any compilation of those records? A. No, I don't know after it leaves me.

Q. You have heard the testimony of the Fire Marshal, Chief? A. Yes, sir.

Q. With reference to the number of buildings that have wooden staircases? A. Yes, sir.

Q. He said there were eighty per cent of the factory buildings that had them and that ten per cent were enclosed with fire walls. I suppose you agree with him in case of fire if they could not get out of the building by the outside fire-escapes, that those wooden staircases are very dangerous things? A. Iron or wood, if they are opened, they are dangerous; don't make any difference what material they are.

Q. And when they wind around an open shaft, or an open hatchway, they are particularly dangerous? A. Particularly dangerous, yes.

Q. It is your experience as an old fire fighter, that these open hatchways and elevator shafts are nothing more than a means of carrying the flames from floor to floor? A. Acts as a chimney.

Q. And they ought to be prohibited, ought they not? A. Yes, sir.

Q. Even in existing buildings? A. Yes, sir.

Q. Or they ought not to be used for factory purposes? A. Yes, sir.

Q. So you would say, then, that seventy per cent of the buildings in Rochester that are used for factory purposes ought to be very materially changed before they are safe? A. Before I would call them safe, yes.

Q. Now, there are seventy per cent that are dangerous to life? A. I could not say as to number.

Q. I mean, basing it on those statements? A. Yes.

Q. Now, Chief, do you find outside fire-escapes of much use in case of fire? A. Well, yes, I have; they are better than nothing.

Q. Yes, that is about right. A. Yes.

Q. But are they of much more use than that? A. If they are built right, outside fire-escapes ought to be some good, especially where there are men, but I would not take much stock in them for women.

Q. What has been your experience with women using them?

A. I never had them use them only in school houses, and I see them make a very poor job of it, but I seen where a common fire-escape would have saved thirty lives, but it was not there to save them; even the ladder fire-escapes.

Q. What kind of a building was that? A. Six-story, wood construction.

Q. Factory building? A. Yes.

Q. How long ago was that, Chief? A. '88.

Q. And thirty lives were lost? A. Thirty-one, something like that.

Q. What would you recommend as means of egress in case of fire? A. Factory buildings?

Q. Yes. A. Well, factory buildings, in the first place, ought not to be allowed to be built over three or four stories high, and in the next place there ought to be outside fire-escapes and the people ought to be made to use them.

Q. You mean, they ought to have fire drills? A. Yes, sir, fire drills.

Q. There ought not to be any sills that are above the level of the fire-escapes? A. No, sir.

Q. Have you ever seen what is called the in-and-out fire-escape — that is where there are no platforms on the outside of the buildings? A. I don't know as I ever have.

Q. Are you familiar with fire walls? A. Yes, sir.

Q. What do you think about those as a means of preventing fires? A. Fire walls are good things, very good.

Q. Would you favor their use? A. Yes, sir.

Q. How about a sprinkler system? A. Nothing better; the best thing that has ever been.

Q. Would you compel a sprinkler system in all buildings over a certain height to be used for factory purposes? A. Yes, sir, all buildings.

Q. Chief, you have nothing to do except to point out the conditions as you find them from your inspections? A. Yes, sir.

Q. You yourself have no power to remedy them or order them changed? A. No, sir.

Q. What do you say about doors opening inwardly in a factory building? A. Ought to open outward.

Q. How many factory buildings are there in Rochester that have doors opening inwardly? A. As to that, I could not tell you.

Q. How many? A. Quite a few.

Q. Is there any reason why they should not be made to open outwardly that you know of — or have sliding doors? A. No, sir.

Q. There isn't any? A. No.

Q. What is your opinion as to whether or not a sliding door would be better than a door opening inwardly? A. I would prefer the sliding door.

Q. Is there anything, Chief, that you would like to tell the Commission about, from your experience in the city of Rochester? A. No.

By Commissioner PHILLIPS:

Q. What is your opinion as to the value of automatic fire-alarms? A. Well, they are good, some of them, if they could be run right, and taken care of properly.

By Mr. ELKUS:

Q. Have you any incendiarism in Rochester at all, Chief? A. Not lately, we haven't.

Q. You are not bothered with that? A. We have had some experience with it two or three years ago, but not lately.

Q. Factory buildings then? A. Every kind of buildings.

Q. It does not exist any longer? A. No.

Mr. ELKUS: I am very much obliged to you, Chief.

HERBERT W. PIERCE, recalled, testified as follows:

By Commissioner PHILLIPS:

Q. For the purpose of the record, I want to ask Mr. Pierce another question. He stated there had been about fifty new factories during the last few years. What is the height of those factories? A. Range from one story up to seven.

Q. Very many of them seven? A. Only the fireproof buildings of mill construction, mostly two to four stories in height.

JAMES W. ELWOOD, called as a witness, and duly sworn,
testified as follows:

By Mr. ELKUS:

Q. Will you give us your name and residence? A. James Elwood, 47 Rosedale.

Q. What is your business? A. I am the manager here for the State Underwriters' Association.

Q. That is an association of fire insurance companies? A. Yes, sir.

Q. For the purpose of arranging rates? A. Rates.

Q. What else? A. Inspections and general conduct of business.

Q. To improve fire conditions? A. That is one of our main objects.

Q. Mr. Elwood, you spoke of inspections; have you a force of inspectors to inspect buildings? A. Yes, sir.

Q. Those are buildings where they apply for fire insurance? A. Not necessarily, we mean to inspect and rate everything.

Q. Have you a list of buildings used for factory purposes in the city of Rochester? A. No, not in the list form.

Q. What do you have, a map? A. No; I have the surveys of them, and individual surveys.

Q. That is a card system? A. Well, the rating appears in the cabinet in a card system, but the surveys are more extended.

Q. And your surveys show at a glance the character of the building, its size, the floor space, and purposes for which the floor is used and kind of business carried on, and in some cases the placing of machinery, does it not? A. All but the last named.

Q. And, of course, it includes such information as the name of the owner? A. Yes, sir.

Q. And kind of merchandise he carries in stock, and various other information for your own purpose? A. The nature of his business.

Q. Do you also have on your survey the exits in case of fire? A. We have the nature of the stairways and elevators.

Q. Of course, your Board is interested more in the preservation of property than it is in life? A. Yes; but it results indirectly in the saving of life.

Q. Of course, I am coming to that. The preservation of property necessarily means very often the preservation of life? A. Yes, sir.

Q. How many inspectors have you? A. Two besides myself.

Q. How often do they inspect the factories in Rochester? A. Well, that varies; not as often as I wish they might, because our force is limited. I find that there is a great difference; some might require more frequent inspection than others. We mean to be governed by that.

Q. You divide your inspection risks into classes, don't you? A. I don't quite get you.

Q. I say, you divide your buildings. You say some require more inspection than others; how do you determine that? A. In the first place, by the nature of the business. In other words, I think the wood worker requires it more frequently than a metal worker, and another thing is the disposition we find on the part of the owner to maintain our rules.

Q. You make an intelligent classification according to the owner and the character of the business? A. Yes, sir.

Q. What is the least number of times you inspect some in a year? A. Oh, well, there are some that we don't get to once a year.

Q. And others you get to once a month? A. Rarely as often as that.

Q. You are able to do that with two inspectors and yourself? A. Pretty well.

Q. You keep a record, I suppose, on your survey of all the inspections that are made? A. Yes, sir.

Q. How often, in your opinion, should factories be inspected? A. Well, I think our rule would apply generally. There are classes and there are factories that require it very much more than others.

Q. What do you consider the fire risk, in Rochester, in factories? Is it great or small? A. Well, it averages pretty well with the cities of the country.

Q. How does it compare with New York city? A. I think it is better.

Q. How does it compare with Buffalo? A. Better than Buffalo.

Q. How does it compare with Syracuse? A. I am not familiar with the figures in Syracuse.

Q. Has the fire risk, in your opinion, increased or decreased in the last year or two? A. I think it has been decreasing for a number of years.

Q. What is the reason of the change? A. There are many.

Q. Tell us some. A. The improvement in the building ordinances is one.

Q. In the new buildings? A. Yes, another, I think, is our system of schedule rating.

Q. What do you mean by that? A. That makes the rates on the building according to its condition. In other words, we make a charge in that schedule for every defect in the building, either in its construction or in its maintenance if it falls below a standard. That makes it incumbent upon an owner to improve those conditions so as to lower his rate.

Q. In other words, you make it pay him? A. We make it pay him, or at least we help them by their making the changes. That is one condition, and I think that has brought about a better class of new buildings; they look to the insurance rates very sharply, and the result is that the architects are looking to safer construction with that in view.

Q. That is the case pretty near everywhere in the United States, isn't it? A. We have had here, a very, very large percentage, lately, of low factory buildings that have gone outside where they have plenty of ground and built one or two-story buildings. That, of course, has materially affected the life proposition, because every window is a fire-escape. It has done away with the elevators, and it has improved it from our point of view as well. There has been a large increase in the amount of sprinkler protection. There has been a disposition on the part of owners to put in the interior protection, extinguishers and so forth, put in a can for the rubbish and prohibit smoking. Those all have their effects.

Q. What is your opinion about these wooden stairways you have heard testified about? A. Why, they certainly are a danger point.

Q. Do you think they should be prohibited or changed, or a fire wall required to be built around them, even in existing buildings? A. We would like to see it.

Q. You certainly think it would save life, don't you? A. I certainly do.

Q. Now, you have spoken about the use of automatic sprinklers. Do you favor the compulsory use of the automatic sprinkler system in factory buildings over a certain height? A. Over a certain height and size.

Q. What height and size would you suggest? A. Why, I think they certainly ought to be in factories where employees are working above the third floor.

Q. What can be done to prevent the spread of fire, caused by the use of inflammable material? A. The first thing is to make more stringent rules in regard to the use of those inflammable materials. We, in the first place, advocate where they are highly inflammable, the keeping of the main stock outside of the factory building or in a fireproof vault, using simply the day's supply. We advocate frequent cleaning and the removal of refuse or the placing of same in fireproof receptacles.

Q. Would you be in favor of legislation compelling the placing of all refuse material that is inflammable immediately in fireproof receptacles? A. If it could be done, yes, sir.

Q. You think that would be a great prevention of fire? A. I think so.

Q. As a matter of fact, a great many fires are caused by carelessness in throwing a lighted match, or cigarette or cigar in inflammable material on the floor of the factory? A. Very many.

Q. And if it wasn't there, of course, the fire would not take place? A. No; furthermore, if they were not smoking.

Q. Would you be in favor of prohibiting smoking by employees in factories during working hours? A. Yes, during working hours, unless in some place especially provided for that.

Q. I mean in the workroom. A. Yes, sir.

Q. Where the material was? A. Yes, sir.

Q. Have you any suggestion to make as to any method that might be used or adopted to secure adequate fire-escape facilities in factories? A. I hardly know what to say.

Q. How about fire drills; are you in favor of those? A. Why, yes, if they are carried out they are a good thing.

Q. How about fire walls? A. The division of the large area buildings by fire walls is a very good point; the sprinklers for interior protection is another, and I think that factories not equipped with sprinklers should be forced to maintain a sufficient minor protection, and that there should be some law governing the frequent inspection of the same to see it is in working order.

Q. An automatic sprinkler system? A. I say where there are no sprinklers, factories should have a certain amount of minor protection. I had, in my experience, some cases where a man would buy chemical extinguishers and hang them up and leave them eight or nine years without touching them, and expect them to work.

By Commissioner PHILLIPS:

Q. Did they ever fill them with kerosene oil? A. I have heard that with regard to hand grenades, but not chemicals.

By Mr. ELKUS:

Q. Have you actually heard that? A. We have heard rumors of it.

Q. Does it increase the rate of insurance when you hear it? A. I don't know as we can apply that.

Q. Have you anything else to suggest to the Commission; any facts that you would like to lay before them, or any suggestion as to remedial legislation? A. No, sir; not that I know of.

By the VICE-CHAIRMAN:

Q. Are you in a position to say how many companies are operating in Rochester, outside of the Exchange? A. Outside of the Association, as we call it here?

Q. Yes. A. No, I don't know how many.

By Mr. ELKUS:

Q. There are some? A. Oh, yes, quite a number, quite a number.

By Commissioner PHILLIPS:

Q. If the law forbade the insurance companies to cover more than seventy-five per cent of a man's loss, would that reduce the number of fires where the fire occurred on his own premises? A. I don't think so, to any material extent. My experience is that that would only have a tendency to keep down intentional fires, and they are small.

Q. Wouldn't it make them more careful in constructing fire walls? A. Possibly it would in that way.

By Commissioner SMITH:

Q. Is there a case anywhere on record where any man ever recovered seventy-five per cent of his loss? A. Is there?

Q. Yes. A. I have see the loss paid many times in full covering every dollar that was lost directly. There is a contingent loss to a man that never can be covered.

By Mr. ELKUS:

Q. What reduction in rate do you make in a factory building where a sprinkler system is installed? A. It is not a set reduction.

Q. It depends upon what? A. Existing conditions; it amounts all the way from fifty per cent to seventy-five per cent.

Q. What is the cost of a sprinkler head in Rochester? A. I don't know as regards individual heads. Of course, that varies very materially with the construction of the building.

Q. The size of the pipes? A. Well, that depends on the number of heads on the lead, but I mean it is very much more expensive to put a sprinkler system in a brick fireproof building than it would be in an ordinary construction.

Mr. ELKUS: Any further questions? Thank you very much.

Dr. B. B. CLARK, called as a witness and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. What is your name and address? A. Dr. B. B. Clark, Triangle Building, Rochester.

Q. What is your profession? A. Optometrist physician.

Q. Do you desire to address the Commission on the question of fire-alarms? A. Well, Mr. Chairman, I am a member of the Fire Prevention Committee of the Chamber of Commerce, and also interested in the proposition which has been developed in this city in the last three or four years. I thought possibly it might be of interest to this Committee to be informed. There is one suggestion that I would like to make, whether it would be pertinent or not; that is in this investigation of fire matters. I have ascertained that the State of Ohio has in existence what is known as the Reed law, that in all primary schools, at least thirty minutes in each week is taken up in a lesson of fire prevention, bringing home to the children that idea of personal responsibility. In relation to the other matter, the proposition that I am interested in, statistics show that in the city of Rochester, and the Commissioner of Commerce and Labor shows that in the United States that more fire-alarms are transferred by telephone than by any other stated system where they exist. Simply for the information of the Commission I want to bring out that there has been a system operating in telephone circuits which would accurately and immediately transmit the alarm to Fire Headquarters, and I have thought of that more with the idea of bringing that information to the Commission.

Q. Did you want to address the Commission on some alarm system? A. Well, not exactly. This is the only proposition of its kind in existence, and we believe that we are in position to do considerable towards the conserving of life and property for the reason that it makes it possible for every home, store and factory to have instant and immediate communication with Fire Headquarters.

Q. What is your system? A. It is known as the Nile Telephone Fire-Alarm system, operates over telephone circuits.

Q. Alarm to the Fire Department or does it alarm inmates of the building? A. Both.

Q. How does it alarm people in the building? A. The proposition as it will be installed, has been under discussion for the last two years with the Underwriter's laboratories and will be a master electric box put into each building. Running to the factory will

be a push button on each floor; located in the basement or outside the building will be an annunciator. In case of fire in that building the watchman breaks the glass and pushes the button which gives a local alarm in that building, and at the same time operates a box through the telephone exchange to Fire Headquarters or any location desired, giving the number of that box, or locating the exact floor of the building. Our contention with this proposition is that it will assist in the conservation for the fact that it makes it possible for any factory or home, or store to utilize a system that is under constant test. Further than that we have found hundreds of the smaller towns and cities where it is impossible to get appropriations large enough to build their own systems, and it was my idea that it might be interesting to this Commission to know that there was in existence such a proposition and the practicability tested out in the last three or four years.

Q. Is there anything further? A. I think not.

Mr. ELKUS: Thank you very much. That will be all this morning, Mr. Chairman.

The VICE-CHAIRMAN: You may leave a few of the pamphlets describing that thing more in detail with counsel.

The Commission stands in recess until 2:15 P. M.

AFTERNOON SESSION.

The Commission met pursuant to adjournment.

Dr. GEORGE W. GOLER, called as a witness and being duly sworn, testified as follows:

By Mr. ELKUS:

Q. You are a physician, Doctor? A. I am.

Q. How long have you been a physician? A. Twenty-two years.

Q. Of what college are you a graduate? A. Buffalo.

Q. For how long have you been practicing your profession here in Rochester? A. For the same length of time.

Q. And what position do you hold under the city government? A. I am health officer, and subordinate in the Board of Public Safety.

Q. Will you state to the Commission what your duties are as health officer? A. You have no regard for time?

Q. We have, yes. A. Then you had better change your question.

Q. Well, you can tell me in your own way. What have you to do as health officer with factory buildings? A. I do not know that I can tell you exactly all we do.

Q. Do you inspect them at all? A. We do; we inspect them in regard to the ordinances and with regard to the rules that govern such buildings. I might say that there is nothing directly in the ordinances which directs us to do that.

Q. Then why do you inspect them? A. Simply because of the ventilation we inspect them.

Q. Isn't it the duty of the State Department of Labor to inspect them? A. I am speaking now on behalf of the city.

Q. I beg your pardon. You mean there is no other city Department that exercises any jurisdiction? A. Over the factory conditions, practically.

Q. Of factories? A. Of all factories.

Q. Don't you pay any attention to the State about it? A. We have not.

Q. Why not? A. I don't know.

Q. Well, is it because the State does not inspect? A. The State does inspect.

Q. Well, what do you do with reference to the inspection of factories? A. We have plans for inspection; inspection upon complaint and a routine inspection where the other Bureaus have a limited number of inspectors, from four to five, and are not all filled in.

Q. When a complaint is made that there are unsanitary conditions, you send an inspector to find if the complaint has foundation in fact, and in time you order the complaint remedied? A. We order it remedied, yes, sir.

Q. Have you any power to enforce your orders? A. There is a power written in the law.

Q. What is the power, Doctor? A. I will read a sentence or two from the ordinances.

Q. What are you reading from? A. From the municipal code of the city of Rochester. That part of it entitled the Health ordinances. A. Section 4 of Article I. Under the duties and powers of the Bureau. This section simply gives the general duties and powers of the Bureau. On the fifth line, "Any Bureau," that is, an employee of the Bureau, "shall have the power to examine into complaints made by responsible persons concerning nuisances or conditions dangerous to life or the public health. They may enter into and examine buildings" and so forth. Then the last three lines, the last four lines of the same article, same section; "It shall be the duty of the Bureau to report to the Corporation Counsel for prosecution, violations of health laws or ordinances, with a statement of the evidence and the names of the witnesses."

Q. Is that all you can do about it, Doctor, report to the Corporation Counsel? A. Yes.

Q. Do you know what becomes of your complaints after you make them? A. I should say in explanation of your question, if you will permit, that when there is a complaint of a violation of any section of the ordinances, or of the health rules, an inspection is made, and an order is made covering that inspection, and a certain number of days or a certain length of time given to the owner to comply with the ordinance, and if a compliance is not forthcoming, the order is sent up to the Corporation Counsel. Now, I should say that that used to be so, but now it is sent to the Commissioner of Public Safety, and not to the Corporation Counsel.

Q. What has the Corporation Counsel got to do with it? A. Well, I presume that we sent in round numbers a thousand or more orders to him each year; of course, all of those orders, it should be understood are not for violations of ordinances relative to factories or workshops. The proportion estimated is not large; I cannot tell you what it was for last year.

Q. What did that prosecution consist of, bringing a suit for a fine? A. Bringing a suit for a fine.

Q. And of course that takes a long time? A. Very long.

Q. And the remedy is practically of no use, is it? A. Not very much.

In many cases there ought to be an immediate change of conditions of each complaint or what you find on investigation? A. There should be ——

Q. I beg your pardon, did I interrupt you? A. I simply ought to say as to these provisions of general health, that my superior, the Commissioner of Public Safety, has a right to make what is known in the parlance of the office as "A Commissioner's order."

Q. What is it? A. That is an order very similar in form to the order which I am permitted to give under the ordinances of the city. The Commissioner of Public Safety by virtue of the power vested in him by the Charter and by the public health law, can go in upon those premises and may do whatever is necessary at the expense of the owner. Of course, that is a long-winded method.

Q. That is to say, you lay a complaint before the Commissioner of Safety? A. No, first I make the order.

Q. You make an order and he does not obey it? A. Yes, sir.

Q. That is he has a certain number of days to comply with your order, say ten days? A. Yes, I forget what it is, it may be ten.

Q. And then the Commissioner makes a similar order giving him a certain number of days to comply with that order, and then if he does not obey it in certain cases the Commissioner has power to go in and have the work done and tax it against the building? A. Yes.

Q. Has the Commissioner ever exercised that power? A. With reference to factories?

Q. Yes. A. I do not recall that that power has been exercised with reference to factories. If it has, it has been in very few instances.

Q. How long have you been health officer, Doctor? A. About 15 years.

Q. Now, will you describe what you call your general inspection when your inspectors have nothing else to do? A. Do I understand you correctly?

Q. Do they inspect factories? A. Yes, sir.

Q. Have you any system or method of inspection? A. Yes, sir.

Q. What is it? A. Why, we have a system of general sanitary inspection of factories. Of course, that it is a very general inspection. It is simply with reference to ordinary lighting and ordinary ventilation, because you understand that in a city like ours there are very few of the factories with anything approaching the kind of ventilation that should be found in a modern factory building where men and women and children are engaged.

Q. How many factories are there in Rochester that have a proper system of ventilation? A. Well, I think that perhaps you could count them on the fingers of both hands.

Q. How many factories are there in Rochester? A. Oh, I am sure I do not know, sir.

Q. My inspectors say there are fourteen hundred factories in Rochester. A. I don't know.

Q. Doctor, I want to inquire about your general inspection. You were going on to state the manner in which you examined factories. Do you take them up in order? Have you a list from which you can determine the location of the factories, so that they may be inspected by designation? A. Well, perhaps I ought to say we examine the factories by different industries. For instance, last winter we took up most of the clothing factories particularly. We took up the clothing factories because at that time a considerable number of the garment workers were to be found in rear workshops where a large number of people congregated together. This year we are taking up the shoe factories.

Q. That is, you take a certain trade and examine it. When have your inspectors last inspected any particular factory? A. Well, I cannot tell you when they last inspected any particular factory without having the records at hand.

Q. Have you completed the examination of the garment factories? A. In large part. I did that last winter in large part.

Q. Will you describe their condition from reports made to you? A. The general sanitary condition?

Q. Describe the different kinds of factories in which garments are made. There is a new modern fireproof factory which is a model, I take it, or as good as anything that can be found here in Rochester. You may describe that to the Commission, and then describe the factories in the old six-story or four-story buildings,

where the floors and the staircases are of wood, and the sanitary conditions are in accordance. A. It hardly seems necessary for me to tell you about all the good ones, it will take some time.

Q. Then we will skip that and take the others. A. Now, take the other type of factories; either it is four or five stories, with a large number of workers on each floor; it has insufficient light, it has lack of ventilation. It is as badly ventilated as this room is at present. Of course, even Factory Commissions and so forth, sit in badly ventilated rooms.

Q. That is not the fault of the Commission, it is the fault of the City Hall. A. That is true. There is a lack of light, and no window ventilation.

Q. That comes up to you, Doctor? A. I have no power.

Q. Can't you condemn the City Hall if it is unsanitary? A. Yes, but it would not do any good. Then there is the lack of retiring conveniences in many of these older wooden buildings particularly, the lack of retiring conveniences for the separation of the sexes. Most of the factories we inspect are not clean, are not model so far as their cleanliness is concerned. I mean large quantities of waste are allowed to accumulate. However, we don't find here the whole condition of the factories as we saw them. The older type of factory ought to be simply wiped out. No such building as we saw should be permitted to be used as factory buildings.

Q. How many are there in Rochester? A. That again is pretty difficult to say, sir.

Q. Oh, give me some idea. They are of appreciable number, are they? A. Yes, sir; hundreds.

Q. You say there are hundreds of buildings that ought to be wiped out of existence? A. I don't mean eight or nine hundred. Perhaps four hundred.

Q. Four hundred ought to be wiped out of existence? A. I think so.

Q. Now, Doctor, will you go on and describe the conditions in these old buildings or have you finished? A. I think I have finished.

Q. What do you find about the sanitary convenience in those places? A. I already said there was a lack of sanitary conveniences

in many places, especially applying to the separation of sexes. Of course, in a good many of those older buildings those conditions have been remedied.

Q. Have you in Rochester workshops in the rear of buildings?

A. Yes, many of them.

Q. Will you describe the conditions in those? A. Well, they are kind of long, low rooms in the rear of the householder, who is a sub-contractor. He takes work home and gets his employees from the immediate neighborhood. Those rear buildings are pretty well lighted, but there is a lack of ventilation that exists particularly in all the garment trades. Especially where people have to work their fingers rapidly, a door or window open is immediately a signal for loud protest.

Q. Doctor, what is the effect on the life of a worker of bad ventilation? A. Well, the general effect, of course, is to lower the health of the worker, and with that lowering health there comes anemia and the diseases of the lungs, and of course, when you couple bad ventilation with a low wage and the increased cost of living, it simply means you are going to weaken the people who work under those conditions, and you are going to interfere with the proper support of their families. In the case of women and girls——

Q. How does it affect their health and the health of their posterity? A. I think there can be no question but that women or girls who work under such conditions as that have the health materially affected. They work under conditions of not only eye strain, but headache. Leaning over and long confinement at sewing, even when they are sitting, frequently induces pelvic and other diseases, and makes them unable to either live their own lives or to hand down a decent kind to posterity.

Q. In many of these factories in the better classes do you find that they use irons heated by gas? A. I don't know about that.

Q. They use gas stoves? A. Yes, they use gas stoves; if they don't use gas stoves, they use stoves just as bad as gas without adequate ventilation. The stoves they use for heating their irons, the old-fashioned tailor's irons, are frequently leaky, and the air already impure is rendered still more impure by the leaking stoves.

Q. Now, do you find that women operate machines in these factories or men? A. Well, there are women operating some machines — others, men.

Q. What is the effect on women and men comparatively, at work on machines in the manner you speak of? A. I do not know that I am able to state the results of my own observation. There are large numbers of people —

Q. You know that from reports you have from others? A. Reports I have got from others, and from individual cases.

Q. Give us your views as you have gathered them. A. No female normally can be worked in the same way or to the same extent as a male — that refers to heavy work — without interfering with her procreative functions.

Q. Do most of these operators work on piece work or do they work for a salary — so much a week? A. I know they work it both ways according to a wage scale. Whether a larger number work at piece work or day's work, I don't know.

Q. What do you say, Doctor, can be done to improve these conditions you have described? A. You are now speaking of factories?

Q. I am speaking of factories. A. Especially with reference to the clothing industry and the dusty trades, no factory should be occupied by either men or women, to say nothing of children, unless there is adequate light and a ventilating system, and I mean by adequate ventilation system a forced system of ventilation; I mean that all the air coming into that factory should be both filtered through cheesecloth and moistened after it is in the factory. There should be provision for adequate quantities of air for each person so employed. Then also what is almost of equal importance in factories especially used for men and women, to say nothing of children — no factory should be permitted to be without a pneumatic system cleaning of some kind. There are great quantities of dust, not only dust incident to the handling of clothing, but the shuffling of the feet on the floor.

Unless factories are very well cleaned, the accumulation of dust fills the atmosphere when the factory is occupied. It is dangerous to the health of the working people.

Q. Doctor, what have you to say about the employment of women who are pregnant, shortly before childbirth or afterwards? A. No pregnant woman should be employed under any condition.

By Commissioner DREIER:

Q. How are you going to avoid it? A. Pension.

Q. State pension? A. I don't know how that pension is to be made, but we certainly would not work a cow with calf, and I do not know why we should work a woman when she is with child.

By Mr. ELKUS:

Q. From what period should she be prohibited? A. From the time of conception.

Q. How long afterwards? A. For a year, rather at least until she finishes the period of lactation.

Q. It has been the testimony of some physicians who have been before our Commission that a woman could safely work at some occupation for until four to six weeks before childbirth. A. My answer to that is that they never were women.

Q. You mean by that to testify that they never had children? A. No, sir; if they did have, they would not have so testified.

Q. Doctor, are you familiar with what is called "speeding up" in factories in this city? A. Not personally.

Q. What is your view and your opinion as to speeding up being permitted, as to its effect upon the worker? A. Why, I think there can be no question but that speeding up is very detrimental to the health of the worker. If you take the human organism, the faster you speed it up the sooner you wear it out. I think that is a sufficient answer to that question.

Q. How many cases of tuberculosis have you knowledge of in this city? A. You mean knowledge as the result of reports?

Q. Oh, yes, reports. A. That again, of course, is one of the curiosities of our American life. We ought to have knowledge of 1,200 cases or more; we have knowledge, I suppose of three or four hundred cases. You see our laws, of course, are simply made to soothe people.

Q. Are these three or four hundred cases or many of them among factory workers? A. I had occasion to make a study of tuberculosis among factory workers in Rochester a number of years ago, and a larger number of cases of tuberculosis were found among factory workers than among these people who worked out doors. That is particularly so in the garment trade, of course.

Q. Is it increasing or decreasing? A. That is pretty hard to say, because we have no real knowledge of the facts. If you want to know what my belief is——

Q. Yes, I want to know your belief. A. Yes, sir; there is no question about the fact that it is increasing.

Q. Now, Doctor, what do you suggest should be done so that you would be able to have a definite knowledge of all cases of tuberculosis, and also what should be done to prevent its increase? A. My answer to the first question is the enforcement of law, every law which provides for the report of all cases of tuberculosis. Of course, that law is not enforced.

Q. The law is not enforced? A. No .

Q. That is a law which is obligatory upon physicians, isn't it? A. Yes, sir.

Q. Well, haven't you a practitioners' association in this city? A. Oh, yes, sir.

Q. And why is it a physician does not obey the law? A. Well, I suppose the physician does not obey the law for the same reason that men in other professions do not obey the law; the law is not enforced.

Q. There is a penalty for disobedience? A. Well, I never had occasion to witness a prosecution; the mere matter of penalty in that or any other law is unknown to me.

Q. Then that is a question for the city authorities? A. I think so.

Q. What do you say, Doctor, should be done to prevent the increase of tuberculosis, and also to bring about its cure or cessation? Some cases of tuberculosis are curable? A. That is just the minds of the people. If you go to the largest sanitarium you will find that they do not believe that quite as strongly as they did two years ago, because in the best sanitarium in the State they followed all their cases for a period of ten years, and they found seventy-five per cent of them were dead. The cure of tuberculosis is just one of those fallacies.

Q. Let me ask you this; I do not know whether you do it in this city, but they do take children who are subjected to tuberculosis because of their parents having tuberculosis, to a sanatorium or what they call a preventatorium; is that any good? A. Why, it

is good for a limited number of children who may come in the preventorium or sanatorium. It is good as long as they stay there, but of course, it is simply prolonging the lives of those children. Tuberculosis, like every other disease has the same penalty—if you put your fingers on a hot stove it will burn you, if you live in a tenement with insufficient air and work all day long under dangerous conditions, of course you will contract disease. The whole problem is one of prevention, not of cure. I think we all recognize that.

Q. The prevention of tuberculosis is the same as the prevention of disease, sanitary conditions of life, especially in working hours?

A. Yes. But something more than that; there is the question of a living wage.

Q. A living wage? A. Of course, we cannot do anything anywhere if there is not a living wage. We hear of campaigns against tuberculosis; the campaigns against tuberculosis is simply keeping alive tuberculosis in order to make a campaign against it. That is what the campaign against tuberculosis is.

By Commissioner DREIER:

Q. You mean the campaign is not fundamental enough? A. No, it is simply fine for the employer.

By Mr. ELKUS:

Q. What is the average wage here? A. The average wage for the garment workers as far as I am able to ascertain is fourteen dollars a week. That is the average wage not including loss of time for sickness, or loss of time from the work.

Q. Is that for both men and women? A. No, our investigation was undertaken in the city of some five hundred or more families, and we took out of those the numbers who were occupied in the various trades.

Q. Would that apply to both men and women? A. No, I think this would apply alone to the men.

Q. What is the minimum wage? A. I do not know; I think it would be difficult for me to tell you.

Q. What do you consider a minimum wage? A. Well, sir—you would have to average it.

Q. Well, take a man with an average family. A. In the average family in Rochester, in studying something less than 1,000 families, a man has two and six-tenths or seven-tenths children average.

Q. You are not a believer here in Mr. Roosevelt's theory? A. I am a believer, but our wages are so small we cannot keep up with the theory. Perhaps living in this rich valley we can live a little more economically than you can in the neighborhood of New York. A man might be able to support a family if he were sure of a wage of fifteen dollars a week, providing, of course, he did not have staring him in the face the fear of slack work, lack of work and sickness in the family and street car fare.

Q. You mean coming and going to his place of work? A. Well, of course, you know—I cannot tell you about the street car companies, you have heard of them in New York, I assume.

Q. It has reached as far as this? A. Every working girl lives out of the neighborhood, and the street car company just like one of those old barons we used to read about on the Rhine, gets close on to ten or twenty per cent of her wages every week.

Q. Is that, Doctor, because there is no place to live near the factory? A. Yes, there are places to live near the factory, but our workman in the city like all other workers, want to live decent American lives.

Q. And that means the spending of car fares? A. Yes, sir.

Q. Well, what suggestion would you make to overcome that difficulty? A. Why, if a man ran an elevator in a department store and charged a tenth of a cent to ride in the elevator you would think he was pretty short-sighted. The only difference between an elevator and a street car, one runs vertically and the other horizontally. Why should we be compelled to pay any street car fare at all? And as long as we are compelled to, why should we pay more than a three-cent fare?

Q. Doctor, do you know from your inspections, or those inspections made by others, whether there are industries in Rochester which require women and children to stand constantly during the day? A. There are.

Q. What industries are they? A. As far as my experience goes they are only the laundry industry.

Q. How long do these women and children stand? A. I don't know; we have not got around to the laundries yet, we may have begun yesterday, but I understood you were to come here yesterday.

Q. You did not begin to-day? How many laundries are there in the city, do you know? A. I do not know, but there are not a very large number.

Q. What is the effect of standing all day at work on a woman or child? A. The effect of standing upon a woman particularly is a very grave one. I think that if we could make a study of the feet and the varicose veins upon the legs of women who stand, we would be perfectly surprised at the conditions we find.

Q. Doctor, has your Department made any investigations further in that line? A. I have photographs of the feet and legs of women who stand, and the great tortuous varicose veins upon those legs would make one expend as much pity on those women as upon a horse that we see whipped on the street. You know we expend a vast amount of pity on the dumb animals that are treated as they ought not to be; we have only recently waked up to the fact that we ought to expend some pity and sympathy upon our own kind.

Q. Doctor, has your Department made any investigations or inspections of bakeries? A. It has.

Q. How recently? A. I think we finished the last routine inspection of bakeries last year sometime; I think late last year or early in the spring; that is six or eight months ago.

Q. How many cellar bakeries have you in Rochester? A. Very few.

Q. What inspections did you make of the bakeries themselves? A. None.

Q. Do you believe in the physical examination of bakers? A. Most assuredly, of everybody.

Q. Of everybody? A. Yes.

Q. Why, Doctor? A. Why, we ought to know especially about those people who are engaged in the handling of our food stuffs and in their manufacture.

Q. I beg your pardon? A. We ought to know about the people who are engaged in the manufacture and handling of our food stuffs, not only for the benefit of the people who work there but for the benefit of the people who are distributing their products.

Q. What do you find the condition of bakeries, are they cleanly or not? A. Well, I think the general conditions in bakeries were rather surprising to us, they were so much better than we expected to find them.

Q. Did you find that the bakers wore street clothes, or did they change their clothes? A. Many of them wear street clothes and some of them wear white clothes or clothes that were once white, but if you examine the baker toward the end of the week or two weeks — whether they change them enough, I do not know. Of course, the clothes are not always as clean as they might be.

Q. Was the condition of the bakers themselves cleanly or not? A. I think there were something over one hundred bakers. We have a small number here because the larger bakeries do the bulk of the business, and as I say, they were very much better than I expected to find them. The men were reasonably clean. There were only a few of the rear bakeries where the men would stable the horse directly in the neighborhood of the bakery, and they would have a pile of manure adjacent to the bakery, or where the dust from the street would come into the bakery. The men were clean according to their general standard of living — which sometimes was low.

Q. What are the average number of hours among the factory employees working in Rochester? A. The employees in the factories?

Q. Yes. A. I do not know that.

Q. Can you tell us anything particular about that? A. No, I doubt whether I could.

Q. What is the effect of long hours upon workingmen and workingwomen, say, ten hours, with a half hour for lunch besides the ten hours? A. It simply wears a man out a good deal sooner.

Q. Could any woman stand it and be healthy? A. I do not believe that a woman, except a very exceptional woman, can stand it and be healthy, and eventually it will wear her out.

Q. Is there any home work of any considerable amount in Rochester? A. There is.

Q. What kind? A. Largely tailoring, and some shoework being manufactured, and bows a little; I do not know; I have only been familiar with stitching of bows, and children's shoes, finishing of children's shoes at home.

Q. What have you to say about home work as to disease or sickness, and their relation one to the other? A. You mean as induced by the home work?

Q. As induced by the home work, yes. A. Every piece of home work puts additional strain upon the family, and the woman must not only take care of her family, but she has to do work as well, and no woman can care for her family and do work at home without injuring herself and lowering her resisting power and interfering with her health.

Q. What have you to say, Doctor, comparing the condition of bakeries here with those in the city of New York? A. Well, of course, I am not very familiar with the bakeries in the city of New York, although I have been in some of them; I think they are better here; very much better.

Q. Doctor, are you in favor of registration or licensing, or both, of all manufacturing establishments either by the State or city? A. I am.

Q. Are you in favor of that license being for a limited period and being renewed upon inspection? A. I am.

Q. Are you in favor of a Medical Department of Labor with an advisory board of physicians who are not paid? A. Well, if you leave out that last part, I will say that I am. I do not know why men of our profession should be unpaid any more than members of the legal profession. I do not think that is fair game to-day.

The VICE-CHAIRMAN: It is only fair to counsel that I make the statement that he is working without pay as well as the rest of the Commission.

Q. Doctor, there is a great deal of duplication of inspection, is there not, by the different Departments of the State and city? A. There certainly is.

Q. What suggestions have you to make as to the modification of that? A. This is general, although I think it may apply to our own city as well. We have fire, health and gas and electricity and water and various other kinds of inspectors, and I know of no reason why at least two classes, which I have mentioned, should not be able to do all the work without this duplication. I would

make the requirement particularly that the statistical information, that we so much lack and so very much need, be made very much easier to get in this way.

Q. Do you state that it could be done by one inspection, or that the two classes of inspectors could do the whole work? A. Well, of course, that is only my own idea about the two classes of inspection.

Q. I understand, I am only asking you for your views, Doctor. A. As I see it, all general outside inspection should be one class, and another class of inspector should do all the general inside inspection.

Q. Doctor, have you anything else to inform the Commission about, by way of facts which have come to your knowledge, or have you any suggestions, because of the special knowledge you have, as to remedial legislation? I want to ask you a very broad, general question. Have you any other information which will enlighten us about any of the subjects of which you have no doubt made a study? We recognize the fact that we are indebted to you for a very great deal of information and the very impartial statement which you have given of the conditions here. We would like you to continue and give us any further information outside of the somewhat narrow line of my questions. A. It seems to me that there should be some kind of a minimum wage under which no workman should be asked to work; that there should be no employment for women under 18 years of age; that no women should be employed more than six hours in any one day. I realize these are rather drastic, but at the same time that was the sum of my investigations and in part belief. In order to enable the worker to live out, there should be a worker's carfare of no more than three cents. We should be able to do a kind of inspection which inspects, and a kind of inspection that should live up to the requirements of the law, a kind of inspection that is proper and not the kind of inspection that we have to-day, which largely has to do with the art of soothing and not inspection.

Q. You mean it is a farce? A. Yes, just a plain farce largely. No worker should be permitted to work the whole year around; there should be a vacation, and there should be a vacation with pay, and lastly, it seems to me, home work ought to be abolished.

The VICE-CHAIRMAN: Except housework?

The WITNESS: I am glad you brought that up. There is nothing that needs supervision more than domestic work; there is no kind of cruelty, it seems to me, like that cruelty of one woman to another and especially when she is employed as a domestic.

Q. On which side is the cruelty? A. On the side of the mistress. I wonder if the Commission is familiar with the paper by Dr. Louis E. Ager on The Relation of Wage-Earning Mothers to Infant Mortality? Dr. Ager is a resident of Brooklyn, and is a well known physician of Brooklyn, and in that part of it he quotes after Dr. Schwartz of New York a table showing the relation between infant mortality and weekly wage earners; I wonder if the Commission are familiar —

Mr. ELKUS: We have seen it and counsel will submit it to the Commission. Is there anything further, Doctor? Take your own time, because we would like to hear you at length.

The VICE-CHAIRMAN: How are we to accomplish the three-cent fare? By an application to the company from the employer?

The WITNESS: No, that would have to be done by the Legislature.

Commissioner DREIER: Doctor, you investigated different occupations with reference to making special rules and regulations. The Commission has heard from other doctors that certain trades are more injurious than other trades.

The WITNESS: I think there is no question about the desirability of investigating each trade. Where the industry requires work which is injurious to the worker, the hours should be shortened and the wages increased. If people are compelled to work in vitiated atmosphere as a result of a particular industry, the hours of labor should be diminished, and they should be surrounded with every mechanical safeguard.

Commissioner DREIER: We all think we ought to have a good method of inspection. Can you give us any suggestions as to what that method should be?

The WITNESS: That would take too long, I am inclined to believe, and would involve a long discussion of rather too many outlying facts, but, of course, the first thing the Commission should realize, is that there should be a real inspection, and an inspection that means something, and an inspection that will require the enforcement of the law. Of course, no legislature, no executive, or anybody else, no matter how much they wish to, can do anything without the aid of public opinion. It is public opinion that must take care of this. We cannot frame legislation, nor can the executive departments enforce legislation in any public form unless public opinion can be aroused; it is a matter of dollars and cents, and until that time is reached we can do nothing.

Commissioner PHILLIPS: What is the sanitary effect of repapering walls without removing the old paper?

The WITNESS: I do not think that is of any great consequence; repapering walls without removing the old paper is of no consequence at all. There are so many things that are of greatly vaster importance than that.

Commissioner PHILLIPS: To what extent are both members of the family, husband and wife, employed in the city of Rochester?

The WITNESS: That is a very hard question to answer. We have no investigations or statistics that will lead us up to that. We have no statistic that will even enable us to make an estimate of the number of cases in which both men and women, husband and wife, are employed, but it is pretty large. We should have the right to inspect, I have no doubt, because the average wage is so low that just as soon as children begin to arrive, the wife is obliged to go to work, and then of course, there are innumerable expenses and almost invariably the older children are compelled to go to work very early. This, of course,

leads finally to various physical, mental and moral disturbances in the family and in the community.

Commissioner PHILLIPS: Now, with reference to the children, do you favor the periodical examination of all the children that are working?

The WITNESS: No, I do not; I believe in prohibiting them from working altogether.

Commissioner PHILLIPS: Up to what age?

The WITNESS: Eighteen.

Commissioner PHILLIPS: After eighteen do you favor an examination?

The WITNESS: Yes.

Commissioner PHILLIPS: How often?

The WITNESS: At least an annual examination. Whether you could at first do any better than that, I do not know.

Mr. ELKUS: Anything further? Thank you very much, Doctor.

DENNIS K. MCCARTHY, a witness duly called and sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Sergeant, what is your full name? A. Dennis K. McCarthy.

Q. And you are a Sergeant of Police in this city? A. I am.

Q. How long have you been on the force? A. Eighteen years and five months.

Q. How long have you been a sergeant? A. Six years.

Q. Are you in charge of any particular work? A. General charge of the enforcement of the ordinances.

Q. What ordinances, all of them? A. Yes, sir.

Q. How many are there? A. Quite a lot, quite a few.

Q. Are there 100? A. No, there are not; those that are classified are a lower number than that, but they are subdivided into more than 100.

Q. Are you the only officer who has the enforcement of the ordinances? A. Yes.

Q. How many men have under you? A. None at all.

Q. What do you do to enforce the ordinances? A. To see that the ordinances are not violated in any way as required by the ordinances. Investigate reports from other officers, etc.

Q. What do you mean by inspection; a personal inspection? A. What I see while traveling through the city.

Q. You mean you walk around the streets and if you see a violation on the sidewalk and in front of buildings you punish somebody for it? A. I do not punish anybody, sir, until we have reason.

Q. You have them arrested, do you? A. Yes, sir.

Q. But do you inspect buildings at all? A. No.

Q. Unless complaint is made? A. No, sir.

Q. You wait until somebody complains and the complaint comes from your superior officer, and then you enter the building? A. No, sir, I do not; I inspect the public buildings, theatres, etc., all of my time during the week.

Q. Anything else than theatres? A. That is all.

Q. Outside of a theatre do you ever enter a building unless there is a complaint made that the ordinance is violated? A. Not voluntarily; no, sir.

Q. And then you go in and see if the complaint is justified, and if it is, you report to your superior? A. Yes, sir.

Q. Have you also charge of licensing engineers? A. No, sir, I have not, but licensing of engineers is under the supervision of the Board of Stationary Engineers Examining Board.

Q. Who makes up that Board? A. Mr. Dengler and two other gentlemen.

Q. Who elects that board? A. His Honor, the Mayor; it is appointed by the Mayor.

Q. What have you to do with the licensing of engineers? A. Nothing whatsoever.

Q. What have you to do with the detection of those who are not licensed but who are acting as engineers? A. The man whom I

find acting without a license as an engineer, I notify him to appear before the Examining Board the next meeting night; it is usually on Wednesday night every week at eight o'clock on the fourth floor of this building, the City Hall, to be examined as to his qualifications to operate a plant or the plant where he is operating at the time.

Q. You mean to say, when you find him, you notify him to appear or do you have somebody else tell him? A. No, sir, I do not; I go around to that place.

Q. How do you go? A. Walk. The city would not furnish an automobile.

Q. You think they ought to? A. Not necessarily, no.

Q. Let me understand you; whenever you want to find out whether people are licensed as engineers you go into every building where they have engineers and ask them if they are licensed? A. Yes, sir.

Q. How often do you go there? A. Every day I go into some building.

Q. How many do you go into a day? A. Sometimes I go into four or five and sometimes not any.

Q. How do you get the list of buildings in which to go? A. I do not keep a list individually.

Q. What do you do, start out on the street and go in the buildings as you go along? A. Yes, sir.

Q. Just a mere haphazard inspection, is it? A. Not necessarily, sir.

Q. I know it is not necessarily, but is it? A. No, it is not haphazard; I go through when I think it is necessary at all times.

Q. Will you please tell the Commission how you are going to find a man without a license? A. If I think a man is operating in a public building without a license, I go there to find out whether he is or not.

Q. What do you mean by a public building? A. Theatre or hotel.

Q. Or a hotel? A. Yes, sir.

Q. Do you know whether you have covered every building in the city of Rochester? A. I have not, because a man does not live that can do it.

Q. You are the only man that is doing this duty? A. The only man.

Q. How many men ought there to be appointed to do it? A. Well, that is a hard question to answer.

Q. You ought to know. A. I know, but my superior officer knows better than I.

Q. Give us your opinion. A. My opinion is that I would love to have an assistant or somebody to help me—that is my opinion. But that would have to come right away from my superior officer; they use their own judgment.

Q. You notify a man, if you find him acting as an engineer without a license, to come before the Board and be examined? A. Yes, sir.

Q. Nobody tries to punish him in any way because he is acting as an engineer without a license, do they? A. If he does not comply with the notification.

Q. If he complies with the notification, he is all right? A. Yes, sir.

Q. And he may have been acting as engineer without a license and controlling a plant for over a year and you did not do anything to him? A. It did not come to my knowledge.

Q. Do you go to him and notify him to appear for examination? A. Yes, sir.

Q. If he passes the examinations, you hand him a license right away? A. He is notified that night that he has passed the examination and to appear the next day at the clerk's office and procure a license.

Q. Is he put on a probationary period at all? A. No, sir, but there are conditions whereby the Board according to orders can give him twenty days.

Q. To do what? To study up his plant a little more and he can appear before the Board again, in twenty days again, and be examined?

Q. You mean the Board may give him twenty days, during which time he can go on and act as engineer without a license? A. By the ordinances the Board is allowed to do that.

Q. Is that done very frequently? A. Quite often, yes.

Q. To what extent is the time extended beyond the twenty days? A. Why, it has been done. I want to qualify that answer a

little. They extend the time for twenty days and then the engineer will again come before the Board by filing an application or something like that.

Q. In the meantime he continues working? A. Certainly, I cannot touch him.

Q. When he cannot pass the examination it is a pretty sure sign he is an incompetent engineer? A. The Board passes on that.

Q. You have to do what you are told? A. Yes, sir.

Q. Do you know the building 15½ South Water street? A. I do, yes, sir.

Q. What kind of a building is that? A. Manufacturing plant; manufacturing building

Q. Don't give me the names — what kind of business is in that building? A. It is subdivided into several businesses.

Q. How many stories are there in that building? A. Four, I believe.

Q. How many businesses are in it? A. Four different firms occupy the building.

Q. What kind of business do they carry on? A. They are divided into manufactories of different kinds.

Q. Garments? A. I don't think so.

Q. How many people work there? A. Why, I do not know, I did not count them; probably 100, maybe more, maybe less.

Q. When were you last in that building? A. Monday morning, about a quarter past eight.

Q. Did you go in there to find out if there was an engineer who was licensed? A. Yes, sir.

Q. What did you find? A. I found an engineer that was not licensed

Q. Is he still there? A. He is; he was there then; I have not been there since.

Q. How long had he been there when you found him? A. He had been there for four weeks to my knowledge.

Q. At least that long? A. Yes, sir.

Q. And he is still there to your knowledge, isn't he? A. I would not say that; he was there Monday when I was there.

Q. Is he an engineer that is running a steam boiler? A. He generates steam in the boiler, carries from four to eight pounds

of steam, probably ten at the most; he is also the janitor of the building, so the manager told me.

Q. Do you know the Happy Hour building? A. Yes, sir.

Q. Where is it located? A. St. Paul street.

Q. What kind of a building is that? A. One-story building, used as a picture house.

Q. You mean as a moving-picture show? A. Yes, sir.

Q. How many people does it seat, Officer? Seven hundred; between five and seven hundred.

Q. How many performances do they have a day? A. Starts in at 11.30, and keeps open continuously to 11 o'clock at night.

Q. Have about ten performances a day? A. Yes, sir.

Q. So there are about six or seven thousand people who use that place a day? A. Yes, sir.

Q. When were you last in there? A. Monday.

Q. Did you find an unlicensed engineer there? A. I did.

Q. How long had he been there? A. He had been there to my knowledge since January 6th; 11th of January, I guess, 1911.

Q. Eleven months? A. Yes.

Q. How is it you did not discover it before? A. I did discover it on January 11th and notified him to appear, and the Examining Board of Engineers told him to go back to his job, to his plant, and they would notify him when they wanted to examine him; he has never been examined yet.

Q. Why not? A. I do not know.

Q. Didn't they examine him when he appeared? A. The night he appeared it seemed there were others who had filed applications, more applications, and they told him to go back to his plant and as soon as they had the leisure they might notify him and they would examine him.

Q. You mean the Board had no time to examine into this since January 11th? A. No, I do not know that.

Q. Have they had time? A. Plenty of time, but I do not mean to say that, sir.

Q. They have not had time to examine this man? A. That, I am sure, I do not know; they have not notified him to appear there.

Q. And the members of the Board have allowed that man to act as an engineer since that time without a license? A. Not without a sanction of the Examining Board.

Q. Will you show me the ordinance which gives the Examining Board power to permit a man to serve without a license for eleven months? A. Yes, sir, I will; I will show you the ordinance which covers it.

(The witness leaves the stand, returns and produces a book.)

Q. Now, read the ordinance you think refers to giving power to the Board to allow an unlicensed engineer to work for eleven months. A. "The power we have granted as to the issuing of licenses is discretionary and is to be exercised as may seem for the public good."

Q. Is that the only provision to which you refer as giving the power? A. The issuing power, yes, sir.

Q. What section is that? A. Section 615.

Q. Giving power to allow an unlicensed engineer to act as an engineer for eleven months?

The VICE-CHAIRMAN: Counsel, I think I can give the Sergeant some light. In this particular case I think the Board decided that this alleged boiler was nothing more than a heating apparatus, and probably did not need an engineer; is that the fact?

The WITNESS: That is right, sir.

Mr. ELKUS: That ordinance does not give any such power, Mr. Chairman. That is all. Sergeant, I thank you.

LOUISE CAREY, a witness, called and duly sworn, testified as follows:

Examined by Mr. ELKUS:

Q. Miss Carey, will you give your full name? A. Louise Carey.

Q. Miss Carey, where do you live? A. I live in New York.

Q. And are you a college graduate? A. No, I am not; I was a couple of years at Bryn Mawr College.

Q. Have you acted as inspector for the Factory Investigating Commission? A. Yes, I have.

Q. For how long? A. Since the 23d of October.

Q. And have you inspected factories in the city of Rochester?

A. Yes.

Q. How many? A. I have inspected 33 factories.

Q. Within what time? A. In two days, I went very rapidly through thirty clothing factories.

Q. Were they all clothing factories you inspected? A. Yes. I inspected a few of the shoe works on another day; three days.

Q. You have had experience in inspecting factories, have you?

A. Yes. I have inspected them.

Q. You inspected many of them before? A. Yes.

Q. Will you tell the Commission the general condition of the factories as you found them from your actual inspection in the city of Rochester within the last few days? A. I found two very fine plants; I did not find any more than two very fine plants. I found no really very unsanitary conditions such as you find in New York, but there were defects in all of these very often, and out of the thirty factories, twenty of them had real filthy floors, and I believe those of a type —

Q. Twenty had what? A. Really filthy floors.

Q. Tell us what you mean by filthy floors? A. I mean a great deal of dust, particularly dust from material that was piled up, but frequently under the machines, not only there, but everywhere, and also scraps of woolen goods over the floor. Of course, those conditions do not exist on every floor of every factory. The eating rooms were generally much cleaner, but in the factory where the pressers worked the floors were in that condition.

I found that out of these thirty factories, fourteen of them where women were at work at the time, had no windows in some of the rooms, and I think nine of them were in very bad condition.

Q. Now, tell us what you mean by saying nine were in very bad condition? A. I mean that they were very dirty. As far as the others were concerned, I noticed that they were all light; I think they were all right; I think it was a modern building.

Q. But it was in a dirty condition? A. It was in a dirty condition.

Q. How about the odors? A. I did not notice the odors in that particular case.

Q. Go ahead. A. I inspected on two very dark days, so that I really could not say that the light in any one of the places was very bad; probably twelve of the factories that I inspected were using artificial light of some kind, but when I asked, I was always told that on a bright day it did not make any difference, they did not need a light, but it was impossible for me to tell.

Q. In all but ten they were using artificial light? What did they use, electric light or gas? A. Mainly electric; some use both electricity and gas. There were floors where the ventilation was very bad. In one of these factories they had a very good system of pumping in hot air and in another they had a ventilating plant in one of the rooms.

Q. How about the others; how was the air and ventilation? A. It was rather close, particularly in the outside shops, but it is not noticeably bad. The pressers use gas irons in every factory that I went into; gas heated irons.

Q. Instead of what? A. Instead of electrically heated irons.

Q. What is the effect of using gas irons? A. I know that after they use the gas irons, the result is to cause nausea.

Q. Go ahead. A. I did not make my inspection with reference to fire protection, but I noticed in a number of buildings, particularly on St. Paul street, without noting the particular buildings, that the staircases were frequently of wood, and that the factories had no adequate facilities in case of fire. I noticed that there seemed to be great speeding up of the workers.

Q. In all the factories? A. In all the factories.

Q. Now, tell us what you mean by speeding up? A. The operators work on clothing on a stitcher called 3115, made by the Singer people, which makes 2,200 stitches a minute. Another machine they have —

Q. Wait a minute, not so fast; how many stitches a minute? A. 2,200 a minute.

Q. How many is that a second? A. That is, I believe —

Q. About 35 isn't it? A. Yes, it makes something like thirteen hundred thousand stitches a day, working ten hours.

Q. Thirteen hundred thousand in how long? A. Thirteen hundred thousand in a day.

Q. Stitches a day? A. Another machine is use makes 1,800 stitches a minute, another they have, which is a double-needle machine, makes 1,700 stitches a minute.

Q. Now tell the Commission — I beg your pardon, did I stop you? A. No.

Q. Tell the Commission what the operator has to do on that machine that makes 1,800 stitches a minute. The operator has to keep his eyes fixed on the needle all day long for ten hours a day; he can never take his eyes off it; if he does, the work will spoil and he will get into trouble. The machine is operated by means of a treadle which is not difficult to work in any way.

Q. What is the effect on the operator of having to keep his eyes on this needle which makes 1,800 stitches a minute? A. I think the effect would be to make eye strain and a general nervous debility.

Q. Did you notice whether or not many of them wore glasses? A. A great many of them wore glasses, but more of the hand sewers wear glasses than operators; I think that is due to the fact that the electric lights used by the operators are adequately shaded, while those in front of the hand sewers are not adequately shaded.

Q. Now, have you anything else? A. There is one question I asked everywhere, "How long hours do you work?" They work from seven until six every day except Saturday, with half an hour for lunch. On Saturday they work generally five hours, —sometimes four. The pressers generally work only four hours on Saturday. I do not know anything about overtime, except that I have been over the Government Report, which has made an investigation of the clothing industry in Rochester, two years ago, I think it was, and out of the 25 factories investigated, they found the result of working overtime.

Q. Now, what else have you? A. I don't think I have anything else.

Commissioner PHILLIPS: Did you find there were fire-escapes needed?

The WITNESS: Yes. I found fire-escapes very much blocked this afternoon in a button factory.

By Mr. ELKUS:

Q. Button factory, where is that button factory? A. In that locality, I do not know the numbers. I went there with another person who saw it before. This person had investigated it about three or four days ago, and found the fire-escapes entirely blocked by two packing boxes, but when I was there they had been removed and put away and were standing on one side, probably because of the observation which she made.

Q. What else have you inspected in Rochester? A. I went into three boot and shoe factories; they are very large plants; they were rather disagreeable and dirty, and the light was not particularly good, but I have no specific fault to find with that except that on each floor there seemed to be a different odor of some sort as a result of the processes.

Q. In these other clothing factories you inspected, what was the condition of the toilets? A. I told you that; I have forgotten the defects I gave you.

Commissioner PHILLIPS: There were some rooms there without windows? A. Yes, and some were dirty, but the plumbing seemed to be perfectly in order.

Commissioner DREIER: Did they have dressing rooms? A. Yes, I found dressing rooms, but in many of them, I haven't the figures, I also found a number of rooms that had been put as rest rooms which were not used as rest rooms. Mrs. Kane, the factory inspector, had directed them put up there and they were partitioned off, but they were full of packing boxes and different things, so that the rooms were for anything but rest.

By Mr. ELKUS:

Q. Do you say they could not be used as rest rooms? A. Yes.

Q. Where do the operators eat lunch? A. In two of the large factories, separate lunch rooms were provided.

